DOCUMENT RESUME

ED 170 451 CE 018 582

AUTHOR Brolin, Donn; And Others
TITLE Mainstreaming [Handicapped] Students in Vocational Education: An Administrator's Guide.
INSTITUTION Missouri State Dept. of Elementary and Secondary Education, Jefferson City.; Missouri Univ., Columbia. Dept. of Counseling and Personnel Services.
PUB DATE Jun 78
NOTE 105p.; For a related document see CE 018 584 ; Some pages may not reproduce clearly due to colored background

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS Classroom Environment; Definitions; Educational Assessment; Federal Legislation; *Handicapped Students; Job Placement; *Mainstreaming; Needs Assessment; *Program Planning; *Reference Materials; Resource Teachers; Secondary Education; Staff Improvement; *Vocational Education
IDENTIFIERS Missouri

ABSTRACT

Eight sections of information concerning vocational education for handicapped students are provided in this guide designed for administrators of vocational education programs. Section I presents an overview of three federal laws affecting vocational education. The identification of handicapped students by local school districts is discussed in section II. Included in this section are the Missouri definitions for handicapping conditions. The role and responsibility of a vocational resource educator (VRE) as a person who has expertise in special and vocational education is discussed in section III. A copy of a questionnaire and the analyses of results of a study undertaken to determine the need for a VRE are also provided in this section. Staff development considerations and suggestions are presented in section IV, while section V describes considerations for vocational programming for handicapped students. Also described are four exemplary vocational education programs in the United States. Considerations for mainstreaming students with handicaps are provided in section VI. Topics include the least restrictive environment, individualized education program (IEP), and accommodating students (eligibility requirements, physical environment, curriculum, time, and equipment). Legislation of hiring practices, job development, pre-employment skills, job placement, and followup are discussed in section VII. Finally, section VIII describes sources of assistance to aid in the process of mainstreaming. Missouri state and local resources are discussed. Also included is a list of national organizations. (JH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED170451

MAINSTREAMING STUDENTS IN VOCATIONAL EDUCATION:

AN ADMINISTRATOR'S GUIDE

June 1978

Project Staff

Donn Brolin, Director
Carolyn Magnuson
Clifford Schneider
Lynda West

Department of Counseling and Personnel Services
College of Education
University of Missouri-Columbia
Columbia, Missouri 65211

In cooperation with the

Missouri Department of Elementary and Secondary Education
Programs for the Disadvantaged and Handicapped
Jefferson City, Missouri 65101

CE 018 582

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

1978

The material in this publication was prepared pursuant to a grant from the Research Coordinating Unit of the Missouri Department of Elementary and Secondary Education. Funds were made available through the Vocational Amendments of 1976, Part 104, Subpart 3.

AN APPROPRIATE COMPREHENSIVE
VOCATIONAL EDUCATION WILL BE
AVAILABLE AND ACCESSIBLE TO
EVERY HANDICAPPED PERSON

. . . U. S. COMMISSIONER OF EDUCATION
June 10, 1978

ACKNOWLEDGEMENTS

The development of a document such as this is not accomplished without the help of others. We are indebted to a number of people for their willingness to share their expertise. We are especially grateful to the vocational educators and administrators who served on our Field Advisory Committee. Their ideas helped us to get started and their support helped us see the project to completion. Our University of Missouri-Columbia Advisory Group provided additional expertise as it was needed. In addition to these Missourians, we are grateful to Gary Meers of the University of Nebraska-Lincoln and Sharon Davis of the Council for Exceptional Children for their supplying us with national resources and information. The Council for Exceptional Children's document Administrative Policies for Vocational Education of Handicapped Students, developed by Ms. Davis, provided helpful information and guidelines as we formulated the ideas for this Guide. We are grateful to the CEC and Ms. Davis for making the document available to us and for allowing us to quote freely from it.

The acknowledgements would not be complete without expressing our appreciation to the Missouri Department of Elementary and Secondary Education personnel who were always available to give assistance. Miles Beachboard and Clide Cassity from Programs for the Disadvantaged and Handicapped, Graham Williams of Special Education and Alan Kelsey of the Research Coordinating Unit gave much of their time and expertise toward bringing the ideas together.

To these people we offer our thanks!

Project Staff

FIELD ADVISORY COMMITTEE

VOCATIONAL EDUCATION CONSULTANTS

Walter Kennon, Director
Dorothy Christy, Instructor
Fort Osage Area Vocational Technical School
Independence, MO

Ralph Beacham, Director
Stan Gardner, Instructor
Cass County Area Vocational Technical School
Harrisonville, MO

M. E. Bron, Director
Ralph Johnston, Instructor
South Central Area Vocational Technical School
West Plains, MO

Jay Willows, Director
Sue Pocze, Instructor
Hickman High School & Area Vocational Technical School
Columbia, MO

Don Bristow, Director
Annabelle Gooch, Instructor
Mexico Area Vocational Technical School
Mexico, MO

Roy Smith, Director
Harry Young, Placement Counselor
Exelsior Springs Area Vocational School
Excelsior Springs, MO

Joe White, Director
Morris Hillyard, Instructor
Jefferson Junior College & Area Vocational Technical School
Hillsboro, MO

John Andrews, Director
Jim Waldorp, Instructor
Special School District
Town and Country, MO

Bud Rogers, Counselor
Ron Marsch, Instructor
Nichols Career Center
Jefferson City, MO

Paul Koffman, Director
Vivian Davies, Resource Person
N.W. Mo. Area Vocational Technical School
Maryville, MO

UMC ADVISORY COMMITTEE

Dr. John Ferguson, Department of Counseling & Personnel Services
Dr. Richard Schofer, Department of Special Education
Dr. Milton Miller, Department of Vocational Education
Dr. W. R. Miller, Associate Dean of the College of Education
Dr. Norman Gysbers, Department of Counseling & Personnel Services

MISSOURI DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION CONSULTANTS

Miles Beachboard
Programs for Disadvantaged & Handicapped

Clide Cassity
Programs for Disadvantaged & Handicapped

Alan Kelsey
Research Coordinating Unit

Graham Williams
Special Education Division

NATIONAL CONSULTANTS

Ms. Sharon Davis, Project Director
Vocational Education Project
The Council for Exceptional Children
Reston, Virginia

Dr. Gary Meers
Special Vocational Needs
University of Nebraska-Lincoln
Lincoln, Nebraska

PREFACE

A free and appropriate education for all students including those with handicapping conditions! This is now the law of the land. Vocational educators, like everyone else, must respond to this important mandate that rightfully accords our handicapped citizenry the opportunity to learn the necessary skills for successful community living and working. Administrators must direct their efforts toward providing appropriate educational opportunities for individuals with handicaps.

This Guide has been prepared for administrators of vocational education programs to assist them in learning more about these individuals, their needs, and resources. The Guide, along with a Resource Guide for the vocational educator, is the result of a 5½ month project funded by the Research Coordinating Unit of the Missouri Department of Elementary and Secondary Education from vocational education funds for the period January 1 - June 30, 1978.

Another major activity of this project was a study to determine the need for a Vocational Resource Educator (VRE) to assist vocational personnel in Area Vocational Schools in Missouri. The results of this study found the need for such an individual to be very important to the successful accommmodation of individuals with handicaps in vocational programs. The VRE is discussed in detail in Section III of this document. We are hopeful that all vocational schools in Missouri will eventually have such an individual on their staff.

I would like to recognize the specific efforts of our project staff, all of whom have considerable training and experience in educational settings. Lynda West coordinated the field efforts with our Advisory Committees, participating schools, consultants and others. Clifford Schneider worked primarily on the research aspect of the VRE study which included questionnaire design, analysis and reporting. Carolyn Magnuson assumed major responsibility for writing the Guide. Gene Conley typed the two publications in their entirety.

We hope this publication will be of value to administrators of vocational programs as they attempt to meet the many training needs of our handicapped citizens.

Donn Brolin, Ph.D.
Professor of Education
16 Hill Hall UMC
Columbia, Missouri

Table of Contents

		Page
Acknowledgements		i
Field Advisory Committee		ii
Preface		iii
I	Legislation	1
	Resources 5.	
II	Identifying Students with Handicaps	7
	Definitions 7; Resources 13.	
III	Vocational Resource Educator	15
	Overview 15; Specific Responsibilities 17; Vocational Resource Educator Study 20; Resources 31.	
IV	Staff Development	49
	Resources 57.	
V	Vocational Programming for Students with Handicaps	59
	Exemplary Programs 60; Vocational Preparation 64; Resources 67.	
VI	Considerations for Mainstreaming Students with Handicaps	69
	Legislation 70; Accommodating Students with Handicaps 73; Resources 81.	
VII	Job Placement and Employment	83
	Legislation 83; Job Development 85; Pre-Employment Skills 86; Job Placement 86; Follow-up/Follow-through 87; Resources 89.	
VIII	Sources of Assistance	91
	State and Local Community Resources 91; Parental Assistance 93; Local Special Education Programs 94; Department of Elementary and Secondary Education 95; Resources 97.	
	General Resources	103
	Especially Helpful Materials 103; Bibliographies 105; Directories of Services and Materials 107.	

SECTION I
LEGISLATION

Limited opportunities

In the past, persons with handicaps have been a part of our population for whom minimal vocational opportunities were available. Because there were very few training programs available to people with handicaps, they were untrained and thus, under-employed or unemployed. Some were placed in sheltered workshops, but many more were without a work identify of any sort. Of the ones who were able to find employment, many were never able to rise above an entry level position and were rarely a part of the regular workforce in terms of seniority and promotions. The problem was circular--there were limited vocational opportunities because of the lack of training, there was limited training because of the lack of job placement opportunities.

Early legislation

Since 1963 federal legislation has reflected an increasing sensitivity to people with handicaps. In that year the Vocational Act talked about people with handicaps in general terms. Five years later, as a reaction to the lack of a voluntary response to people with handicaps, the Vocational Amendments of 1968 provided for set-aside money and defined the persons for whom and for what the money was to be expended.

Current legislation

Current legislative mandates have further defined federal guidelines for persons with handicaps and have a significant impact on the educational opportunities for all students. Along with the increased opportunities for students go increased responsibilities for local education agencies to expand their programs so that people with handicaps may be provided an equal opportunity for an appropriate public education. Vocational Education has been affected by three specific pieces of legislation: 1) The Education for All Handicapped Children Act (PL 94-142); 2) The Education Amendments of 1976, Title II--Vocational Education (PL 94-482);

Three laws

*Note: Information in this section is adapated from information in an article by Lloyd W. Tindall, "Education for all Handicapped Persons: A Mandate for the New Year, American Vocational Journal," January, 1978.

3) The Rehabilitation Act of 1973, Sections 503 and 504 (PL 93-112). This section of the Guide will present a brief overview of the legislation as it affects vocational education.

The federal rules and regulations for each of these Acts may be found in the Federal Registers of the following dates:

(PL 93-112) Section 503	January 18, 1977
(PL 93-112) Section 504	May 4, 1977
(PL 94-142)	August 23, 1977
(PL 94-482)	October 3, 1977

Education Amendments (PL 94-482)

The Education Amendments of 1976 (PL 94-482) require that each state expend 10% of its federal vocational funds to provide up to 50% of the total costs of special services for students with handicaps. The costs of providing the special services must be in excess of the cost of educating students in regular vocational education. The Act further requires that vocational programs for students with handicaps must be consistent with state plan requirements under the Education for All Handicapped Children (EHC) Act.

Rehabilitation Act of 1973 (PL 93-112) Section 503

Sections 503 and 504 of the Rehabilitation Act of 1973 (PL 93-112) protect the civil rights of persons with handicaps. Section 503 is important to vocational educators because it deals with affirmative action for employers. Any employer with a federal contract of more than $2,500 must take affirmative action to hire qualified persons with handicaps. If the contract involves $50,000 or more and fifty or more people are employed, the employer must develop an affirmative action plan listing the sources utilized in recruiting the handicapped.

Section 504

Section 504 prohibits discrimination against all persons with handicaps by any program or activity receiving federal assistance. (Each federal agency is responsible for developing its own guidelines for compliance. The Department

of Health, Education and Welfare is one agency that has already published these guidelines.) The intent of this section of the law is to end discrimination solely on the basis of handicap. Those receiving federal funds may not discriminate against persons with handicaps in regard to employment, program accessibility, education, health, welfare or social services. In addition, 504 requires an annual identification and location of every handicapped person by local school districts for the purpose of informing them of their rights to a free appropriate education.

Education for all Handicapped Children (PL 94-142)

The Education for All Handicapped Children Act (PL 94-142) is designed to assure provision of a free and appropriate education to all handicapped students between the ages of 3 and 21. One of the major requirements of the Act is that an individualized education program (IEP) be written for each student with a handicap. Vocational educators should be involved either directly or indirectly in the development of the vocational education portion for students enrolled in vocational education programs. According to the Act, vocational education must be specifically planned so that students with handicaps may participate with non-handicapped students to the maximum extent possible. Parental involvement in the development, review and revision of the IEP is provided for by the law.

Missouri Law

In addition to the federal legislation, Missouri has state legislation designed to enable the enactment of PL 94-142. House Bill 474, passed in 1973, guarantees students between the ages of 5 and 21 who are handicapped the right to a free, appropriate public education. A majority of the provisions of the "Education for All Handicapped Children Act", including child find activities, diagnosis and evaluation, appropriate services and due process procedures, are addressed in HB474.

The essence of each of these legislative mandates is that persons

Employment...a right for <u>every</u> person

with handicaps shall have equal access to education and employment--certainly a reasonable right for any person. Vocational education has a unique opportunity to help people with handicaps bridge the barriers to their becoming wage earners.

The legislation described here is a giant step toward making that happen.

Reference:

Tindall, L. Education for all handicapped persons: A Mandate for the new year. <u>American Vocational Journal</u>, 1978, <u>53</u>, 26-29.

RESOURCES

These resources will serve to further clarify and explain the legislation relating to students with handicaps.

Council for Exceptional Children. Administrative policies for vocational education of handicapped students, Davis, S., Project Director. Reston, VA: 1978.

Halloran, W., Foley, T., Razeghi, J. & Hull, M. Vocational education for the handicapped resource guide and federal regulations. Austin: Texas Education Agency, 1978.

Meers, G. The handicapped: learning, earning, contributing: National training workshop. Lincoln: University of Nebraska-Lincoln, 1978.

Phillips, L. Barriers and bridges. Sacramento: California Advisory Council on Vocational Education, no date.

President's Committee on Employment of the Handicapped. Architectural Checklist: making colleges and universities accessible to handicapped students. Washington, D.C.: Author, no date.

SECTION II

IDENTIFYING STUDENTS WITH HANDICAPS

Child find activities

In order to know the number of persons eligible for special services in Missouri, a "child-find" is conducted each year. The "Education for All Children Act" (PL 94-142) and Missouri HB474 provide for the annual identification of all students with handicaps who reside within the jurisdiction of each local education agency. The local education agency has the responsibility to identify, locate and evaluate all students with handicaps regardless of the severity of the handicap and to determine what services are being received or are needed. The local information is forwarded to the State Department of Elementary and Secondary Education, Division of Special Education, where the data is compiled into statewide information.

1976-77 Census

The 1976-77 census showed that there were 121,530 people with handicaps between the ages of birth and twenty residing in Missouri. Of these 1,977 were younger than school age (birth-5 years), 120,902 were school age (5-18) and 4,651 were 19-20. Table 1 shows the breakdown by age and handicapping condition.

A study of the data will aid in understanding the incidence of each handicapping condition in Missouri. The reader should note especially the high incidence of "speech" as a handicapping condition in children between the ages of 5 and 18.

Definitions

State and federal guidelines

In order to help local districts establish parameters for defining "handicapped", state and federal legislation has established working definitions to serve as guidelines. Though each Act carries its own definition as it relates to the unique population for whom the law is intended, the intent of the definitions is the same.

Missouri law defines handicapped as those who are:

> Under the age of twenty-one years who have not completed an approved high school program and who, because of mental, physical, emotional or learning

TABLE 1

1976-77

CENSUS SUMMARY

Age	0-4	5-11	12-14	15-18	19-20
Blind	24	100	66	77	33
Partial Sighted	44	483	324	367	109
Deaf	59	403	168	210	58
Hard of Hearing	64	1,015	602	752	153
Speech	644	34,846	3,992	1,811	320
Educab. Retarded	174	8,831	8,161	9,922	2,243
Tranble. Retarded	113	1,078	752	1,108	342
Prfond. Retarded	653	380	189	286	77
Emotny. Disturbed	83	3,514	2,632	2,131	308
Sp.Lrn. Disability	160	19,029	7,161	3,902	286
Orth. Handicapped	198	793	408	713	246
Sp.Health Problem	199	1,235	903	1,614	376
Cerebral Palsy	134	337	98	100	36
Elipsy.	22	139	108	162	64

Compiled from data provided by Department of Elementary and Secondary Education, Division of Special Education

problems, require special education services in order to develop to their maximum capacity. (Missouri Department of Elementary and Secondary Education, 1977, p.15)

The bill further provides definitions of the handicapping conditions. They are as follows:

Definitions of specific handicaps

1) Educable Mentally Retarded (EMR): Those students who are capable of academic, social, and vocational training but require specialized instruction to realize maximum skill development and meaningful integration into adult society.

Educable Mentally Retarded

2) Specific Learning Disabled (SLD): Those students who have a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written. It may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations...The term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, of emotional disturbance, or of environmental cultural, or economic disadvantage.

Specific Learning Disabled

3) Behavior Disordered (BD): Students that exhibit one or more of the following characteristics over an extended period of time and to a marked degree:

Behavior Disordered

- Difficulties in learning that cannot be explained by intellectual, sensory, or other health factors;
- Difficulties in building or maintaining satisfactory interpersonal relationships with peers, parents, and teachers;
- The general pervasive mood of unhappiness or depression;
- A tendency to develop physical symptoms, pains, or fears associated with personal or social problems.

4) Speech and Language: Those students whose speech or language deviates so far from other individuals in a group that it calls attention to itself, interferes with communication, or adversely affects the self-image of the student.

Speech and Language Impaired

5) Developmental Speech and Language: Those students whose

language disabilities are too severe to be remediated through remedial speech or language therapy sessions alone. In order for these students to progress academically, they require placement in a class designed for children with severe language disabilities.

Orthopedically handicapped

6) Orthopedically Disabled: Those students who have conditions such as cerebral palsy, spina bifida, muscular dystrophy, congenital defects (such as hydrocephalus, club feet, heart conditions), and adventitious defects (such as poliomyelitis, rheumatoid arthritis, osteomelitis, hydrocephalus), and other physical defects in varying degrees requiring special adaptation and modification of school facilities and equipment.

Visually impaired

7) Partially Seeing: Those students whose visual acuity is so limited as to require specific educational compensation of a significant nature in order that the learning needs of the student can be adequately met by the school district. As a general rule, the partially-seeing student evidences a central visual acuity range of 20/70 to 20/200 in the better eye with best correction by glasses.

8) Blind: Those students whose visual acuity is so limited as to require a comprehensive educational program involving compensatory services including but not limited to large print materials, utilization of recorded materials, mobility training, developmental braille skills and self-help and daily-care skills development. Legal blindness is generally characterized by a visual acuity of 20/200 or less in the better eye after best correction by glasses or peripheral vision subtending an angle not greater than twenty degrees.

Hearing impaired

9) Hard of Hearing: Those students whose hearing is impaired to the extent that language, social, and/or academic development is restricted to a significant degree educationally but who is not eligible for placement in classes for the deaf. Generally, students who are eligible for placement in classrooms for the hard of hearing exhibit hearing loss in a range from 40 dB to 60 dB (ISO). In many instances, students will exhibit a mild hearing of 25 dB to 40 dB (ISO), and such students may profit from preferential seating in the classroom with teacher assistance.

10) Deaf: Those students with no hearing or limited residual hearing sensitivity which is not sufficient to enable understanding of spoken language nor to develop language successfully even with a hearing aid without specialized instruction. (Missouri: Department of Elementary and Secondary Education, 1977, pp. 15-24)

Defining handicapped and vocational education

The Education Amendments of 1976 (PL 94-482) clarify the definition of handicapped as it relates to vocational education by saying that because of the handicapping condition, the student:

- Requires special education and related services, and
- Cannot succeed in the regular vocational education program without special educational assistance; or
- Requires a modified vocational education program.

The key for vocational educators are the words "requires special education...and cannot succeed in the regular vocational education program without special...or...modified...program". This means that a student who does not require special assistance or a modified vocational program even though he or she is in special education does not qualify as handicapped and the district cannot use federal set-aside funds for his or her vocational education.

Provisions for availability, non-discrimination, and notification

PL 94-142, HB 474 and PL 94-482 define persons who are eligible for special education and related services. Section 504 of PL 93-112 provides for the availability of those services for students with handicaps. As was noted in the first Section, under 504 no person can be excluded from a program on the basis of a handicapping condition. It also provides for notifying persons with handicaps that they are eligible for an appropriate public education.

Guarantee for jobs

Section 503 of PL 93-112 guarantees that employers receiving federal funds hire qualified persons with handicaps. Thus, each of the laws links its unique definitions and provisions to the others to assure that people with handicaps are given an equal opportunity for education and employment.

Reference

Missouri Department of Elementary and Secondary Education. Missouri special education services. Jefferson City: Author, 1977.

RESOURCES

The resources listed below will expand on the identification and definitions of handicapping conditions. They will enable the reader to have a more in-depth knowledge of each of the handicapping conditions.

Altfest, M. Vocational edcuation for students with special needs: a teacher's handbook. Fort Collins: Colorado State University, Dept. of Vocational Education, 1975.

Arkansas Renabilitation Research & Training Center. The rehabilitation of the deaf: A training guide. New Orleans, LA: Eleventh Institute on Rehabilitation Services, 1973.

Ayrault, E. Helping the handicapped teenager mature. New York: Association Press, 1974.

Cruickshank, W. The problem and its scope. In Cerebral Palsy: A developmental disability. Syracuse: Syracuse University Press, 1976.

Donlon, E. Visual disorders. In William M. Cruickshank (Ed.), Cerebral Palsy: A developmental disability. Syracuse: Syracuse University Press, 1976.

Felton, J; Perkins, D; & Lewin, M. Paraplegia and quadriplegia. In Rehabilitation of the spinal cord injured. Hot Springs, AR: Arkansas Rehabilitation Research and Training Center, 1974.

SECTION III
VOCATIONAL RESOURCE EDUCATOR

OVERVIEW

Need for a resource person

In order to provide vocational educators with the needed assistance and resources for working with students who are handicapped, the position of Vocational Resource Educator was conceived. The role of the VRE is intended to be similar to the role of the Educational Resource Teacher (ERT) now being developed for non-vocational education programs. Persons qualified to assume the VRE position will have expertise in special education as well as vocational education.

Expertise in special education and vocational education

Description

Support system

The Vocational Resource Educator (VRE) will be a professionally trained teacher or counselor who will establish and manage a supportive educational service system for assisting vocational teachers and other area vocational school educators in effectively meeting the unique needs of mainstreamed handicapped students. The primary function of the VRE will be to facilitate the handicapped students' assimilation and adjustment in the mainstream of vocational education. The VRE will act as a consultant to vocational educators within the school system and provide services and assistance by:

Consultant to vocational educators

- Conducting in-service training programs
- Assisting in placing handicapped in appropriate programs
- Assisting in designing programs appropriate for handicapped students
- Assisting teachers with classroom management

Community liaison

Since, in many cases, the educational needs of the handicapped require a multidisciplinary approach, the VRE will work beyond the traditional boundaries of the school by providing services and assistance in:

- Developing public relations
- Working with advisory committees
- Assisting cooperating employers
- Assisting parents of handicapped students
- Assisting with job placement of handicapped students

Qualifications

The VRE should be an individual with at least a Bachelor's degree

who has a minimum of two years of experience in classroom teaching, counseling, or program management in either Special Education or Vocational Education. In addition, the VRE should have non-professional employment experience which provided direct exposure to the demands of the world of work. The VRE will need to be proficient in the utilization of motivational techniques and be expected to command competencies in the following domains:

- Individual Education Plan (IEP) Preparation
- Vocational teaching techniques
- Special education teaching techniques
- Administration
- State and Federal legal requirements
- Related resources
- Community facilities
- Appropriate jobs for handicapped
- Employer-employee relations

Specific state certification

The Missouri Department of Elementary and Secondary Education will establish the specific certification and funding provisions for the VRE.

SPECIFIC RESPONSIBILITIES

The Vocational Resource Educator (VRE) will be responsible for managing a supportive educational service system for assisting vocational educators and cooperating employers in effectively meeting the unique needs of mainstreamed handicapped students. The VRE will work both within the school system, as a consultant to vocational educators, and beyond the traditional boundaries of the system in providing for a well coordinated multidisciplinary approach to effective vocational education for the handicapped. The VRE's responsibilities will fall within the following broad categories:

Six areas of responsibility

- Program Planning and Development
- Coordination of Services
- Curriculum Development
- Utilization of Appropriate Instructional Methods
- Management of Learning and Social Skills
- Job Placement and Supervision

Program Planning and Development

One of the chief functions of the VREs will be to coordinate and monitor the vocational education services being utilized for any and all students for whom they are responsible. The VRE will assist teachers, counselors, employers and other personnel who deal with handicapped students in planning, directing, and managing their overall educational program. If the existing services within the school system are not adequate to meet the unique needs of any particular student, the VRE will assist the system's personnel in designing and developing new or revised programs to overcome the deficit. In this function, the VRE will:

1) Assure that the provisions of state and federal laws, rules, and regulations are met.
2) Assist and monitor in the planning and writing of Individual Education Programs.
3) Insure that handicapped students are placed in a program which reflects the "least restrictive environment" mandate.

4) Reorganize existing programs (or parts thereof) in unusual, unique, and creative ways to remediate specific deficiencies of some students.

Coordination of Services

Liaison to resources

In some instances, the unique needs of the handicapped students will require services which are not available through the regular or modified program. In this function, the VRE will:

1) Identify resources within the community--people, programs, and facilities--which may be incorporated as a part of the school program for students requiring the services of these resources.
2) Act as a liaison between all team members, both within and outside the school system, offering services to students as well as to the parents of the students.

Curriculum Development

Modification of curriculum

In assisting the vocational teacher in dealing with handicapped students, the VRE will help modify existing curriculum to better suit the learning style of the individual students. In this function, the VRE will:

1) Assist in developing modular learning packets.
2) Reorganize and restructure existing curriculum to meet unique individual needs.
3) Assist in developing new remedial curricular materials.

Instructional Methods

Identify new techniques

One of the characteristics of some handicapped students is that they cannot learn to their maximum capability with the traditional educational methods and techniques. With respect to this problem, the VRE will:

1) Assist in modifying traditional techniques.
2) Assist in employing and developing appropriate special educational techniques.
3) Assist in locating and/or designing appropriate audio-visual and other media.
4) Assist vocational teachers in fostering study habits and motivating handicapped students.

Management of Learning and Social Skills

Life skills

A central facet of successfully serving handicapped students is the capability to help students develop and maintain effective learning and social skills. In this function, the VRE will:

1) Identify specific strengths of individual students which may be used as foundations for remediation.
2) Work with teachers to develop and utilize effective classroom management systems.
3) Assist in developing individual contractural agreements with handicapped students.

Since personal behavior management is critical to the educational and vocational adjustment of the handicapped student, the VRE will work closely in this area with teachers and other school personnel, as well as with parents and employers.

Job Placement and Supervision

Employment

Since the principle objective of any vocational educational training program is successful job placement of the trainee, the participation of the VRE in programs involving handicapped students is of prime importance. In this function the VRE will provide services in both the pre-and post-employment realms.

A. Pre-employment

1) Assist in developing the job-seeking skills of handicapped youth.
2) Assist handicapped students to develop an understanding of the basic personnel and policy procedures necessary to maintain satisfactory employee/employer relations.
3) Work closely with the vocational placement coordinator in finding appropriate jobs for handicapped students.

B. Post-employment

1) Assist newly employed handicapped students in developing the personal-social skills needed to coexist with co-workers.
2) Act as the student's advocate and/or "trouble shooter"

for any problems which arise with handicapped students who have been placed in a job.

3) Support parents and employers in assisting handicapped student-trainees adjust to problems associated with training and employment placements.

VOCATIONAL RESOURCE EDUCATOR STUDY

Overview

Vocational educators surveyed

In the spring of 1978 this project conducted a survey of 257 vocational educators and administrators in 16 area vocational schools. The purpose of the study was what vocational teachers and administrators felt would be the most significant *problems* experienced in mainstreaming handicapped into their programs, what *roles* Vocational Resource Educators would best fill, and what *competencies* would be required for them to be successful.

Data analyzed

Factor analysis revealed seven specific concerns regarding *problems*, three areas regarding *roles*, and three areas regarding *competencies*.

A series of one-way analyses of variance revealed significant differences in the degree of the problem in mainstreaming among people representing different vocational service areas, among people representing different school settings, between people possessing different educational backgrounds, and between people with varying degrees of experience in dealing with the handicapped. Another one-way analysis of variance revealed that females, when compared to males, indicated the Vocational Resource Educator should possess a higher degree of over-all *competency*.

Methodology

Advisory committee

In the initial stages of the study, project staff examined similar projects from several states and reviewed literature and other pertinent data. This information was used to provoke thought and discussion during a meeting of the Project's Field Advisory Committee. Their ideas were utilized in the formulation of a questionnaire.* The primary purpose of the questionnaire was to help

*A copy of the questionnaire is included in the Resource part of this section.

answer those questions delineated above with respect to *problems* anticipated in mainstreaming and the *roles* and *competencies* a Vocational Resource Educator would have to assume to alleviate those problems.

The Field Advisory Committee, composed of vocational teachers and administrators, was appointed from ten area vocational school systems in Missouri which had volunteered to participate in the study. At the first meeting of the staff and Advisory Committee, information was developed regarding specific aspects of the proposed questionnaire. A draft copy of the questionnaire was then developed with the aid of several consultants, but based primarily upon suggestions from the Advisory Committee. This copy was then sent by mail to the Advisory Committee members for their final suggestions for revision.

Following the final revision of the questionnaire, it--along with specific directions for administration and machine-scored answer sheets--was returned to the participating school systems for administration to their entire vocational faculty. At subsequent meetings with the Advisory Committee, project staff disseminated the results of the study.

A second administration of the questionnaire included an additional six vocational school systems in the study. The inclusion of the data from these school systems increased the number of questionnaire respondents from 189 to 257.

257 educators responded

In keeping with the primary intent of the study--to produce useful information considering the utilization of a VRE in vocational programs with mainstreamed handicapped students--the first statistical treatment of the data consisted of a factor analysis of each of the three separate parts of the questionnaire: *problems*, *roles*, and *competencies*. Each of these parts was composed of statements reflective of conditions within its respective area.

Factor analysis

Analysis of variance

The second treatment of the data consisted of a series of analyses of variance (ANOVAs) where the scores on each of the questionnaire parts (dependent variables) were analyzed according to the demographic data (independent variables) which had been reported by the respondents. The demographic data consisted of the following six areas:

- Vocational Area of Primary Responsibility
  1. Agriculture
  2. Home Economics
  3. Trades and Industries
  4. Business
  5. Health Occupations
  6. Distributive Education
- School Setting
  1. Urban
  2. Suburban
  3. Rural
- Educational Background
  1. Vocational Certification
  2. Bachelor's Degree
  3. Master's Degree or Above
- Position
  1. Teacher
  2. Administrator
  3. Work-Study Coordinator
- Experience Working with the Handicapped
  1. None
  2. Some
  3. Considerable
- Sex
  1. Male
  2. Female

Results*

The results of the part of the survey relating to *problems* of mainstreaming students with handicaps in vocational education classrooms revealed seven factors of concern. Vocational educators foresee the following as potential problems in the process of mainstreaming:

Problems foreseen by vocational educators

- The academic and personal-social skills of the handicapped students;
- The overall image of students with handicaps;
- The extra time mainstreaming would require for preparation and for teaching.
- The lack of assistance from support personnel;
- Others' view of the attitude of the handicapped toward learning;
- The attitude of others toward the handicapped;
- General concerns of safety, peer attitudes and pre-vocational skills of handicapped students.

When the demographic data was analyzed, differences between the groups responding were identified in four categories:

- Vocational area
- School setting
- Educational background
- Experience

Role of the V.R.E.

The portion of the survey that related to the *roles* of the Vocational Resource Educator identified three major roles as being significant. They were:

- Working with public relations and in-service training;
- Assisting with job placement and supervision;
- Assisting with curriculum and social skills needs.

The data analysis of the demographic data revealed no significant differences between the groups in their identification of role responsibilities.

*A detailed statistical analysis of the data appears in the Resource part of this Section.

The section of the questionnaire relating to *competencies* needed by the VRE identified three areas as significant. They were:

Competencies needed by VRE

- Have a knowledge of available resources.
- Have a knowledge of effective teaching techniques.
- Possess administrative skills.

Analysis of demographic data pointed to a significant difference between the view of males and females in regard to the level of competency needed in each area.

Detailed statistical analysis

The Resources part of this Section contains more complete statistical information regarding each of the areas.

Conclusions and Recommendations

Through the process of factor analysis, a large number of diverse statements were "reduced" to the few significant and descriptive factors identified above. The questionnaire respondents identified a rather wide, but reasonable, range of problems they foresee in consideration of mainstreaming students with handicaps into vocational programs where they previously had not been included. None of the problems identified seemed to be extreme or unreasonable and most of them--especially the concern expressed regarding academic and personal-social skills--are probably descriptive of reasons given as the rationale for the traditional philosophy of dealing with the handicapped. This leads to the conclusion that time has not altered educators' views regarding the difficulty of dealing with the handicapped in homogeneously grouped classrooms. Those interested in fostering mainstreamed programs and those responsible for developing and managing them need to be aware that the very reasons which originally led to the removal of the handicapped from the mainstream of education still exist to a considerable extent. If mainstreaming efforts are to prove fruitful, effective steps must be taken to solve these problems.

Deal with problems realistically

Another concept which bears careful consideration is one revealed through *Problems* Factor two: Image of the Handicapped. Unfortunately, it appears that many vocational educators seem to feel that the handicapped as a group have unpleasant appearances and are careless about personal hygiene. A similar concept was revealed in *Problems* Factor five: Others' View of the Attitude of Handicapped Toward Learning. The identification of this factor as a *problem* suggests that many vocational educators seem to feel that handicapped individuals possess poor attitudes toward learning or are otherwise unmotivated in ways which would affect vocational training. In these respects, vocational educators are probably no different than other teachers (or the general public, for that matter), but the seriousness of these stereotypes cannot be over-looked. If mainstreaming of the handicapped into vocational classrooms and programs is to be successfully accomplished, these sometimes emotionally overloaded stereotypes must be dealt with intelligently.

Eliminate stereotypes

Two other factors identified as *problems*, Time (Factor three), and Lack of Assistance from Support Personnel (Factor four), directly pinpoint the need for the training and utilization of support personnel such as the Vocational Resource Educator. With respect to the utilization of the VRE as a *problem* solver, the respondents to the questionnaire exhibited considerable consistency. An individual serving in the three roles revealed through the factor analysis, *Public Relations and In-service Training*, *Job Placement and Supervision*, and *Assisting with Curricular* and *Social Skills Needs*, would function in capacities which are both internal and external to the school setting. These functions are:

Need for support

Internal	External
Provide in-service training	Coordinate public relations
Assist with vocational counseling	Work with advisory committee
Assist with program placement	Assist employers
Assist with program design	Assist parents
Assist with behavioral management	Assist with job placement

Types of support

Through serving in these capacities, the VRE would provide assistance which would relieve vocational educators of a portion of the burden they would experience when first confronted with a mainstreamed classroom or program.

The consistency persisted through the third portion of the questionnaire. The three *competencies* identified by the respondents, *Knowledge of Resources*, *Knowledge of Teaching Techniques*, and *Administrative Ability*, seem to cover the range of abilities one would need to possess to help overcome the numerous *problems* identified as common with handicapped students mainstreamed into vocational programs. Again these *competencies* reflect both internal and external functions:

VRE's skills

Internal	External
Knowledge of:	Knowledge of:
IEP requirements	laws pertinent to handicapped
vocational teaching techniques	resource people
special teaching techniques	community facilities
administrative techniques	jobs appropriate for the handicapped
vocational evaluation techniques	employer-employee procedures

This wide range of identified *competencies* bears considerable importance to effective planning for training individuals to work as Vocational Resource Educators.

Other areas of concern regarding the training and use of a Vocational Resource Educator, and in some respects regarding mainstreaming handicapped students into vocational programs in general, were revealed through the five significant ANOVAs outlined above. Conceptually, the higher the mean score on the dependent variables, *Problems* and *Competencies*, the more significant a challenge that particular group viewed mainstreaming the handicapped. In this respect, then, individuals responsible for decision-making regarding mainstreaming handicapped into vocational programs should be aware that those in certain vocational service areas and school settings

Differences between groups

and those with less educational background and experiences in dealing with the handicapped see their inclusion in regular vocational programs as significantly more problematic. If certain individuals or groups hold such views, program success may be in jeopardy unless steps are taken to overcome the difficulty.

Compensatory steps may be effectively taken in two ways: 1) through programs such as in-service training, and 2) through dealing with individual vocational teachers as they begin to experience mainstreamed handicapped students. In both these methods, the utilization of a Vocational Resource Educator could prove invaluable. In the training of such individuals, and in the functional aspects of their programs, several of the findings from the statistical analysis of this project bear consideration. First, those responsible for implementing the use of a VRE in their vocational programs should be especially careful to select only highly competent individuals and that steps be taken to assure that their initial input to the vocational program be in areas where success resulting from their endeavors is highly probable.

Choose highly competent individual

Second, in both the selection and utilization of a VRE, planners need to know that individuals representing certain vocational service areas (e.g., Agriculture and Health Occupations), school settings (e.g., Rural) tend to view mainstreaming of the handicapped as significantly less of a problem than so those representing other areas (e.g., Trades and Industries and suburban school settings). The implications from these findings are that those responsible for recruiting individuals to serve as VREs may consider concentrating their efforts in those areas where mainstreaming is seen as less of a problem, thereby increasing their chances of recruiting more positively oriented personnel. Conversely, in utilizing a VRE as a problem-solver, efforts may prove more fruitful if concentrated in those areas which view main-

streaming as a more serious problem. This conclusion seems justified whether the difference in degree of the problem is real and due to circumstances or simply a reflection of that particular group's attitude. The important point to remember is that value-judgements regarding attitudes toward and acceptance of the handicapped should be set aside, and for the purpose of planning, efforts need to be directed toward the area in which the empirical data reflects the greatest need.

Another aspect of the empirical data generated from this study bears consideration: Those with higher levels of formal education (e.g., Master's degrees) and those with more experience with the handicapped tend to feel that mainstreaming is less of a problem than do those with less formal education (e.g., vocational certification) and no experience with the handicapped. In consideration of these findings, planners should direct their recruiting toward the group most positively viewing mainstreaming, while inversely directing their remedial efforts toward the groups viewing mainstreaming as more of a problem.

Caution about using empirical data

Considering the conclusions drawn above regarding the empirical data, one caution is in order. Statistical analyses are helpful in the formulation of generalizations useful in planning and organization. Care should be taken, however, to assure that the generalizations not be inappropriately applied to individuals or "exceptions to the rule". Thus, some individuals who represent the groups viewing mainstreaming most negatively may make excellent VREs and should not be discriminated against because of their affiliation. Similarly, from the standpoint of directing services, exceptions within individual programs may dictate that those representing a group usually not considering mainstreaming a serious problem are in the most immediate need of assistance. The important point is that the conclusions and recommendations made on

the basis of the empirical data from this study are offered to assist those individuals responsible for planning and implementing mainstreamed vocational educational programs, not to replace their administrative judgement.

Use own judgement in final decision-making

RESOURCES

MAINSTREAMING HANDICAPPED STUDENTS IN REGULAR VOCATIONAL PROGRAMS

Survey Questionnaire

The Missouri State Department of Elementary and Secondary Education in cooperation with the University of Missouri-Columbia, is conducting a statewide survey to: (1) determine the major problems that Vocational Instructors and Work Study Coordinators perceive as limiting their effectiveness with handicapped students; (2) determine what roles a "Special Vocational Resource Person" might assume in assisting vocational teachers to work more effectively with handicapped students; and (3) determine the competencies needed by such a resource person in assuming these roles.

We would like you to help us in this survey so that handicapped students who are mainstreamed can be assisted more effectively in Area Vocational Schools. The results of this survey will be used in determining how vocational instructors and work study coordinators can most appropriately receive assistance in working with handicapped students. A Glossary of Terms is provided on the last page if you need it. We will need you to mark your responses on a separate scoring sheet. Your cooperation in this study is appreciated.

A. *Please complete the following information about yourself and place your responses on the scoring sheet. (Your name is not required).*

1. Vocational area of primary responsibility: (1) Agriculture (2) Home Economics (3) Trades and Industries (4) Business (5) Health Occupations.
2. Vocational area of primary responsibilities (Continued): (1) Distributive Education (2) Other.
3. School Setting: (1) Urban (2) Suburban (3) Rural.
4. Educational Background: (1) Vocational certification (2) Bachelor's degree (3) Master's or above.
5. Position: (1) Teacher (2) Administrator (3) Work Study Coordinator (4) Other.
6. Experience working with the handicapped: (1) None (2) Some (3) Considerable.
7. Sex: (1) Male (2) Female.

For the purpose of this study, the following definition of handicapped from the Vocational Act will be used:

> *"Handicapped students" are those who are mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, other health impaired, or as having specific learning disabilities, and who because of those impairments need special education and related services, and who, because of their handicapping condition, cannot succeed in the regular vocational education program without special education assistance or who require a modified vocational program.*

Please respond to each item with the above definition in mind. If you have any questions about completing the questionnaire, please ask the individual who is assisting us at your school. Remember to use the Machine Scoring Answer Sheet for recording your responses for each item.

B. *How would you rate each of the following items as far as being a problem you anticipate or experience instructing handicapped students. Please use the following scale:*

Rating Scale
1 = Not a very important problem
2 = Somewhat important
3 = An important problem
4 = Considerable importance
5 = A very important problem

Problems	Level of Importance
8. The standards of performance you expect from students.	1 2 3 4 5
9. The extra time required for you to instruct handicapped students.	1 2 3 4 5
10. Your inexperience in teaching handicapped students.	1 2 3 4 5
11. The reading level of most handicapped students.	1 2 3 4 5
12. The time required for preparing Individual Education Programs (IEPs).	1 2 3 4 5
13. Finding handicapped students jobs which are related to the training they receive (MOTIS Accountability).	1 2 3 4 5
14. Handicapped students lack of prevocational skills necessary for entry success in vocational programs.	1 2 3 4 5
15. The safety hazards that exist in shops, laboratories, and on the job.	1 2 3 4 5
16. Peer attitudes toward having handicapped students in vocational programs.	1 2 3 4 5
17. Being required to assist transporting physically handicapped students to on-the-job training sites.	1 2 3 4 5
18. Developing appropriate methods of teaching handicapped students in and outside the classroom.	1 2 3 4 5
19. Vocational staff's attitude about working with handicapped students.	1 2 3 4 5
20. The physical appearance of the handicapped students.	1 2 3 4 5
21. The personal hygiene of handicapped students.	1 2 3 4 5
22. The stamina needed to complete the length of vocational training programs.	1 2 3 4 5
23. Entrance requirements for vocational programs being too strict for handicapped individuals.	1 2 3 4 5
24. Handicapped students' level of self-esteem and confidence.	1 2 3 4 5
25. Handicapped students' ability to follow oral instructions.	1 2 3 4 5
26. Handicapped students' ability to communicate in written form.	1 2 3 4 5
27. Handicapped students' level of verbal skills.	1 2 3 4 5
28. Handicapped students' attitude toward learning.	1 2 3 4 5
29. Availability of trained support personnel (e.g., vocational counselors, speech and hearing specialists, etc.)	1 2 3 4 5

Problems	Level of Importance
30. Parents reluctance to accept program placement recommendations deemed appropriate by vocational education staff.	1 2 3 4 5
31. Methods of evaluating handicapped students' performance.	1 2 3 4 5
32. Having to grade handicapped students differently than other students.	1 2 3 4 5
33. Architectural barriers.	1 2 3 4 5
34. Availability of inservice/staff development opportunities for learning how to teach handicapped.	1 2 3 4 5
35. Handicapped students' level of understanding of job vocabulary.	1 2 3 4 5
36. Handicapped students' level of math and computation skills.	1 2 3 4 5
37. Community resistence to supporting programs for handicapped persons.	1 2 3 4 5
38. Preparing employers to accept handicapped persons as employees.	1 2 3 4 5
39. Handicapped students' level of personal-social skills.	1 2 3 4 5
40. Handicapped students' knowledge of job survival skills.	1 2 3 4 5

C. *How would you rate (using the same 5-point scale) the importance of each of the following potential roles a "Special Vocational Resource Person" might assume in assisting vocational staff in instructing handicapped.*

Rating Scale

1 = Not a very important role
2 = Somewhat important
3 = An important role
4 = Considerably important
5 = A very important role

Roles	
41. Conduct intake and testing sessions to assure proper program placement.	1 2 3 4 5
42. Develop vocational counseling programs for career decision-making, personal development, job seeking, study habits, etc.	1 2 3 4 5
43. Assist the placement coordinator in finding handicapped students jobs.	1 2 3 4 5
44. Assist employers and handicapped students during cooperative training placements.	1 2 3 4 5
45. Help teachers implement Individual Educational Plans (IEPs).	1 2 3 4 5
46. Assist in keeping the public informed of the school's activities for handicapped students.	1 2 3 4 5
47. Assist and support parents and employers in helping handicapped students adjust to training and employment placements.	1 2 3 4 5
48. Provide liaison services between administrators, parents, and teachers.	1 2 3 4 5
49. Assist in identifying students' problems, needs and potentials.	1 2 3 4 5

Roles	Level of Importance
50. Assist in identifying and prescribing ways to improve student behavioral deficiencies.	1 2 3 4 5
51. Assistance in modifying curriculum to meet the needs of handicapped students.	1 2 3 4 5
52. Provide assistance in designing and developing additional programs and services for handicapped.	1 2 3 4 5
53. Provide assistance in directing and managing the students' overall educational program.	1 2 3 4 5
54. Assist in locating and/or designing appropriate media for use with the handicapped.	1 2 3 4 5
55. Develop publicity methods and materials.	1 2 3 4 5
56. Work with news media.	1 2 3 4 5
57. Work with Advisory Committee.	1 2 3 4 5
58. Conduct and coordinate in-service training program.	1 2 3 4 5

D. *How would you rate (using the same rating scale) the importance of each of the following competencies a "Special Vocational Resource Person" might be expected to possess when assisting educators in instructing handicapped students.*

Rating Scale

1 = Not a very important competency
2 = Somewhat important
3 = An important competency
4 = Considerably important
5 = A very important competency

Competencies	
59. Possess a high degree of interpersonal skills	1 2 3 4 5
60. To be able to employ communication skills fluently.	1 2 3 4 5
61. Know and be able to implement special education teaching techniques.	1 2 3 4 5
62. Know and be able to implement vocational education teaching techniques.	1 2 3 4 5
63. Know and be able to implement vocational testing/evaluation.	1 2 3 4 5
64. Know and be able to implement counseling procedures.	1 2 3 4 5
65. Possess administrative skills.	1 2 3 4 5
66. Know how to develop individual learning modules and other specialized instruction.	1 2 3 4 5
67. Know basic personnel and policy procedures related to employer-employee relations.	1 2 3 4 5
68. Know job placement procedures.	1 2 3 4 5
69. Know the various limitations and restrictions some handicapping conditions may have on certain jobs.	1 2 3 4 5

Roles	Level of Importance
70. Know available community facilities and resources.	1 2 3 4 5
71. Know resource people who are available and able to assist handicapped people.	1 2 3 4 5
72. Know behavior modification techniques.	1 2 3 4 5
73. Write, evaluate, and monitor the implementation of individual education programs (IEPs).	1 2 3 4 5
74. Know how to coordinate activities with vocational rehabilitation counselors.	1 2 3 4 5
75. Know state and federal laws, rules, and regulations that relate to vocational programming for the hardicapped.	1 2 3 4 5

Thank you very much for your assistance in this study.

VOCATIONAL RESOURCE EDUCATOR STUDY DATA ANALYSIS

ANALYSIS OF *PROBLEMS*

Table 1 lists the items used as the principle elements of the factors relative to the *Problem* component. These factors indicate the problems vocational educators foresee in the mainstreaming process.

1. Factor Analysis (Factors shown in rank order of importance)

- Factor one: Academic and Personal-Social Skills
  This factor containing six principle elements (listed in rank order of importance in Table 1) accounted for 32.8% of the variance among scores, and was the most robust of all the factors identified. The key word in this factor, seems to be "skills". The respondents to the questionnaire felt that a lack of skills on the part of the handicapped in both the academic and personal-social areas is a very significant problem. Moreover, the consistency with which this item was ranked very high clearly indicates that this item represents the greatest area of concern among the questionnaire respondents.

- Factor two: Image of the Handicapped
  This factor contained four principle elements, accounted for 6.3% of the variance among scores, and, while comparatively weaker than Factor one, is still significant. Three of the four elements of this factor clearly contribute to the respondents' consideration of "Image" as a significant problem in considering the inclusion of handicapped students in vocational programs. The fourth element of this factor, "being required to assist transporting physically handicapped students to on-the-job training sites", does not seem to align exactly with the other elements of the factor.

- Factor three: Extra Time
  Containing four elements and accounting for 5.9% of the variance, this factor identifies a rather common problem. The elements of this factor are fairly clear: they specifically state the time concern or identify problems which require extra time. This concern is logical, since teachers and administrators both tend to feel that their time is already accounted for and it is understandable that they would be concerned with anything which would contribute to an already serious problem.

- Factor four: Lack of Assistance From Support Personnel
  Two of the three elements composing this factor clearly contribute to

Table 1

Principle *Problem* Elements Contributing to Each Factor

Rank Order	Elements
	Factor one: Academic and Personal-Social Skills
1	Handicapped students' level of math and computation skills. *(36)
2	Handicapped students' level of understanding of job vocabulary. (35)
3	Handicapped students' ability to communicate in written form. (26)
4	Handicapped students' level of verbal skills. (27)
5	Handicapped students' level of personal-social skills. (39)
6	Handicapped students' ability to follow oral instructions. (25)
	Factor two: Image of the Handicapped
1	The physical appearance of the handicapped students. (20)
2	The personal hygiene of handicapped students. (21)
3	Community resistance to supporting programs for handicapped persons. (37)
4	Being required to assist transporting physically handicapped students to on-the-job training sites. (17)
	Factor three: Extra Time
1	The extra time required for you to instruct handicapped students. (9)
2	The time required for preparing Individual Education Programs (IEPs). (12)
3	The standards of performance you expect from students. (1)
4	Developing appropriate methods of teaching handicapped students in and outside the classroom. (18)
	Factor four: Lack of Assistance From Support Personnel
1	Availability of in-service/staff development opportunity for learning how to teach handicapped. (34)
2	Architectural barriers. (33)
3	Availability of trained support personnel (e.g., vocational counselors, speech and hearing specialists, etc.) (29)
	Factor five: Others' View of the Attitude of Handicapped Toward Learning
1	Handicapped students' level of self-esteem and confidence. (24)
2	Handicapped students' attitude toward learning. (28)
3	Handicapped students' level of verbal skills. (27)
	Factor six: Other Peoples' Attitude Toward Handicapped
1	Preparing employers to accept handicapped persons as employees. (38)
2	Peer attitudes toward having handicapped students in vocational programs. (16)
3.	Finding handicapped students jobs which are related to the training they receive (MOTIS accountability). (13)
4.	Community resistance to supporting programs for handicapped persons. (37)
	Factor seven: General Concern
1	The safety hazards that exist in shops, laboratories, and on the job. (15)
2	Peer attitudes toward having handicapped students in vocational programs. (16)
3	Handicapped students' lack of prevocational skills necessary to entry success in vocational programs. (14)

* Questionnaire item number

the conclusion that the questionnaire respondents' feel a lack of assistance from support personnel is a significant problem when handicapped students are mainstreamed into regular vocational classes. The third element, "architectural barriers", seems to be related to the primary conclusion only in a weak or indirect fashion. One possible explanation for its inclusion in this particular factor is that the respondents felt that the existence of architectural barriers within their schools would be the area where they would expect to receive the least amount of assistance from support personnel. This factor accounted for 4.1% of the variance among scores.

- Factor five: Others' View of the Attitude of Handicappd Toward Learning
  The key element in this factor, which contained three elements and accounted for 3.7% of the variance, seems to be attitudes the handicapped may have toward learning. The questionnaire respondents felt that low verbal skills and a low level of self esteem and self confidence of persons with handicaps were elements which either contribute to, or are found concurrently with lack of motivation toward learning.

- Factor six: Other People's Attitude Toward the Handicapped
  Three of the four elements composing this factor clearly contribute to its makeup. "Employers' acceptance of the handicapped", "Peer attitudes toward them", and "Community support for programs for them", are elements which would be heavily dependent upon the attitudes these groups hold toward the handicapped. The fourth element, "Finding handicapped students jobs which are related to the training they receive (MOTIS accountability)", is less directly related to the factor, but still entirely plausible, since finding jobs, no matter what the condition, depends upon the attitudes the prospective employer would have toward the applicant if they were a part of any group which could stigmatize its members. This factor accounts for 3.6% of the variance among scores.

- Factor seven: General Concern
  The diversity of the three elements composing factor seven, which accounted for 3.2% of the variance, make interpretation highly tenuous for the purpose of a descriptive phrase which would have common meaning. Perhaps one possible explanation of this factor is that it stands as an expression of the general concern vocational educators feel regarding the mainstreaming of handicapped students into their programs.

2. Analyses of Variance

Six separate analyses were performed--the dependent variables, problems by the six independent variables (vocational area, school settings, educational background, position, experience working with the handicapped, and sex) and four revealed statistical differences at the .05 (or better) level of confidence. The results of the four significant analyses are discussed and summarized in Table 2.

- ANOVA one: Problems Score by Vocational Area

  In this analysis, the respondents' total score on the portion of the questionnnaire relating to the problems they feel would appear when handicapped students were mainstreamed into vocational programs was analyzed according to the vocational service area they represented. The results of this analysis indicate that significant differences exist among the people in different service areas. With those in the Trades and Industrie. area showed the highest mean score while those in Agriculature showed the lowest mean score. This would suggest that those in the vocational service area of agriculture feel that mainstreaming of handicapped students is less of a problem than do those in the trades and industry vocational area.

- ANOVA two: Problems Score by School Setting

  A high level of significance emerged from this analysis with those in the suburban school setting showing the highest mean score on the *Problems* section of the questionnaire and those in the rural setting showing the lowest mean score. This would suggest that those in rural school settings view mainstreaming handicapped students in vocational classes as less of a problem than do those in suburban school settings.

- ANOVA three: Problems Score by Educational Background

  This analysis revealed a high significance level when the mean scores on the *problems* section of the questionnaire was compared to the type of professional certification (educational background). In this analysis, the mean scores of those with a vocational certificate were highest while those with a Master's Degree or above ranked lowest. This would suggest that those with Master's degrees view mainstreaming as less of a problem than do those with a vocational certificate.

- ANOVA four: Problems Score by Experience

  The questionnaire respondents were asked to indicate the amount of experience

Table 2

Analyses of *Problems* Score by Demographic Data

ANOVA one: Problems Score by Vocational Area

Summary of Scores

1. Agriculture	n= 28	$\bar{X}$= 92.4167	SD=20.3758
2. Home Economics	n= 12	$\bar{X}$=108.4167	SD=23.3528
3. Trades and Industries	n=127	$\bar{X}$=113.3701	SD=22.3943
4. Business	n= 32	$\bar{X}$=112.2188	SD=24.8579
5. Health Occupations	n= 13	$\bar{X}$=100.4615	SD=24.6022
6. Distributive Education	n= 28	$\bar{X}$=108.2857	SD=21.3209

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F ratio	F Prob.
Between Groups	5	6563.1397	1312.6279	2.545	0.0291
Within Groups	218	112447.5352	515.8142		
Total	223	119010.6250			

ANOVA two: Problems Score by School Setting

Summary of Scores

1. Urban	n= 50	$\bar{X}$=107.9000	SD=22.9909
2. Suburban	n= 92	$\bar{X}$=116.9783	SD=19.2439
3. Rural	n=113	$\bar{X}$=104.0708	SD=24.4009

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F ratio	F Prob.
Between Groups	2	8603.7335	4301.8633	8.584	0.0002
Within Groups	252	126285.4102	501.1326		
Total	254	134889.1250			

ANOVA three: Problems Score by Educational Background

Summary of Scores

1. Vocational Certificate	n=116	$\bar{X}$=116.3793	SD=22.5657
2. Bachelor's Degree	n= 53	$\bar{X}$=104.6226	SD=22.8525
3. Master's Degree or Above	n= 60	$\bar{X}$=101.7500	SD=21.0701

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F ratio	F Prob.
Between Groups	2	10330.1185	5165.0586	10.431	0.0000
Within Groups	226	111910.6211	495.1797		
Total	228	122240.6875			

ANOVA four: Problems Score by Experience

Summary of Scores

1. None	n= 86	$\bar{X}$=114.6977	SD=22.1837
2. Some	n=140	$\bar{X}$=107.6071	SD=23.5315
3. Considerable	n= 28	$\bar{X}$=104.2500	SD=21.4400

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F ratio	F Prob.
Between Groups	2	3591.8458	1795.9229	3.436	0.0337
Within Groups	251	131209.9141	522.7485		
Total	253	134801.7500			

they felt they had in dealing with the handicapped--either None, Some, or Considerable. The analyses of these independent variables by their mean score on the *Problems* Section of the questionnaire revealed that those with no experience with the handicapped scored significantly higher than did those respondents who had considerable experience. This would suggest that those with more experience with the handicapped view mainstreaming as less of a problem than do those without any experience with the handicapped.

ANALYSES OF *ROLES*

Table 3 lists the items used as the principle elements of the factors relating to the *role* component of the study. These factors indicate what vocational educators see as the role of the Vocational Resource Educator.

Table 3

Principle *Role* Elements Contributing to Each Factor

Rank Order	Elements
	Factor one: Public Relations and In-Service Training
1	Work with news media. *(56)
2	Develop publicity methods and materials. (55)
3	Work with advisory committee. (57)
4	Conduct and coordinate in-service training programs. (58)
5	Assist in keeping the public informed of the school's activities for handicapped students. (46)
	Factor two: Assist With Job Placement and Supervision
1	Assist employers and handicapped students during cooperative training placements. (44)
2	Assist and support parents and employers in helping handicapped students adjust to training and employment placements. (47)
3	Assist the placement coordinator in finding handicapped students jobs. (43)
4	Develop vocational counseling programs for career decision-making, personal development, job seeking, study habits, etc. (42)
5	Conduct intake and testing sessions to assure proper program placement. (41)
	Factor three: Assist With Curriculum and Social Skills Needs
1	Assistance in modifying curriculum to meet the needs of handicapped students. (51)
2	Provide assistance in designing and developing additional programs and services for the handicapped. (52)
3	Assist in identifying and prescribing ways to improve student behavioral deficiencies. (50)
4	Provide assistance in directing and managing the students' overall educational program. (53)

* Questionnaire item number

1. Factor Analysis (Factors shown in rank order of importance)

   - Factor one: Public Relations and In-Service Training

     This factor, accounting for 49.3% of the variance among scores, emerged as the most pervasive and powerful of all factors considered with respect to the *roles* a Vocational Resource Educator might assume in assisting vocational educators work effectively with handicapped youngsters who are mainstreamed into their programs. The identification of these *roles* is clear when consideration is given to the fact that the questionnaire respondents identified factors related to in-service training under the Analyses of *Problems* which coincide with this concept. This would suggest that the respondents are particularly sensitive regarding the need for assistance in dealing with the handicapped.

   - Factor two: Assist with Job Placement and Supervision

     The communnality of the five elements making this factor, which accounted for 7.5% of the variance, is very clear. The interpretation of this factor is that vocational educators place considerable importance on the objective of their programs--placement of the individual on a job--and feel that the importance of this objective would justify a significant amount of help when they were dealing with handicapped students. This factor seems to stand somewhat independent of any identified under the Analyses of *Problems*. One explanation of this may be that the questionnaire respondents actually felt this to be a problem, but no items under the *Problems* section related directly enough to be identified through analysis.

   - Factor three: Assist with Curriculum and Social Skills Needs

     The four elements composing this factor which accounted for 6.2% of the variance are clearly and directly related to it. In addition, these two aspects of this factor, curriculum and social skills needs, seem to be directly related to the most powerful factor identified under the *Problems* section, *Academic and Personal-Social Skills*. The people responding to the questionnnaire are quite consistent in the identification of these problems and the logical concern for help in this area when dealing with mainstreamed handicapped students.

2. Analyses of Variance

   No significant findings emerged from these analyses (see Table 6).

ANALYSES OF *COMPETENCIES*

Table 4 lists the principle elements relating to each of the factors within the area of *Competency*. These factors indicate the competencies vocational educators consider important for the Vocational Resource Educator to possess.

Table 4

Principle *Competency* Elements Contributing to Each Factor

Rank Order	Elements
	Factor one: Knowledge of Available Resources
1	Know resource people who are available and able to assist handicapped people. (71)
2	Know state and federal laws, rules, and regulations that relate to vocational programming for the handicapped. (75)
3	Know available community facilities and resources. (70)
4	Know the various limitations and restrictions some handicapped conditions may have on certain jobs. (69)
5	Write, evaluate, and monitor the implementation of Individual Education Programs (IEPs). (73)
	Factor two: Knowledge of Effective Teaching Techniques
1	Know and be able to implement vocational education teaching techniques. (62)
2	Know and be able to implement special education teaching techniques. (61)
3	Know and be able to implement vocational testing/evaluation. (63)
4	To be able to employ communication skills fluently. (60)
5	Possess a high degree of interpersonal skills. (59)
	Factor three: Administrative Skills
1	Possess administrative skills. (65)
2	Know basic personnel and policy procedures related to employer-employee relations. (67)

1. Factor Analysis (Factors shown in rank of importance)

- Factor one: Knowledge of Available Resources

  In the identification of this factor, which accounted for 50.6% of the variance among scores, the questionnaire respondents are pointing to the multidimensional needs of the handicapped and realize that an individual fulfilling the *role* of the Vocational Resource Educator would need to be highly competent in identifying and utilizing resources which may augument the vocational programs in which handicapped students are enrolled.

- Factor two: Knowledge of Effective Teaching Techniques

  The identification of this factor is, again, an indication of the questionnaire respondents' concern over the lack of skills as identified in Factor one, and the implication this may have when handicapped are mainstreamed into vocational programs. In identifying this factor, it appears that the people responding to the questionnaire feel the Vocational Resource Educator would have to have considerable knowledge and ability in helping overcome the handicapped persons' lack of skills and inability to learn under ordinary educational conditions. This factor accounted for 7.8% of the variance among scores.

- Factor three: Administrative Skills

  Only two elements clearly contributed to this factor, but both of them indicate the respondents' feelings that a Vocational Resource Educator will have to work with diverse elements of a multidimensional program and that overseeing such a program would require competency as an administrator.

2. Analyses of Variance

Six separate analyses were performed using the dependent variable *Competencies* and each of the six independent variables within the demographic data. One revealed a statistical difference at the .05 (or better) level of confidence. The results of this analysis are summarized in Table 5 below and discussed on the following page.

Table 5

Analysis of *Competencies* Score by Demographic Data

ANOVA one: Competencies Score by Sex

Summary of Scores

1. Male	n=172	X=67.4360	SD=13.7220
2. Female	n= 79	X=71.4304	SD-12.0188

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ration	F Prob.
Between Groups	1	863.6386	863.6384	4.948	0.0270
Within Groups	249	43465.3047	174.5594		
Total	250	44328.9414			

- ANOVA one: *Competencies* Score by Sex

In this analysis, the dependent variable was the score on the *Competencies* section of the questionnaire and the mean scores of males and females were compared. The results indicated a significant difference exists between males and females in the overall level of competency they feel the Vocational Resource Educator should possess, with females displaying the higher mean score.

ANALYSES REVEALING NO SIGNIFICANT DIFFERENCES

A total of eighteen different analyses of variance were conducted, with five of them (as previously noted) indicating significant differences and thirteen revealing no significant difference between variables. The thirteen analyses which revealed no significant differences are shown below in Table 6.

Table 6
Analyses With No Significant Differences

Dependent Variable	by	Independent Variable
Problems Score		Position
		Sex
Roles Score		Vocational Area
		School Setting
		Educational Background
		Position
		Experience
		Sex
Competencies Score		Vocational Area
		School Setting
		Educational Background
		Position
		Experience

RESOURCES

(No author) Competencies and Assessment Behaviors for Vocational Specialists Coordinating the Education of Handicapped Learners in the Vocational Education Awareness Program. Final Report, Section B. April, 1974-December 31, 1975. (ERIC Document Reproduction Service No. ED 131 244)

(No author) Identification of Professional Competencies Necessary for Teachers of Disadvantaged and Handicapped Youth. Supplemental Document of the EPDA Project 74122. (ERIC Document Reproduction Service No. ED 126 310)

Bond, Richard and Weisgerber, Robert. Mainstreaming the Handicapped in Vocational Education. Developing a Positive Attitude. (ERIC Document Reproduction Service No. ED 142 768)

Camaren, R. James and Others. Guidelines for Improvement of Vocational Programs and Resources to Serve Needs of Handicapped Students. Final Report. (ERIC Document Reproduction Service No. ED 142 806)

Coursen, David. Administrative Implications of Mainstreaming. NAESP School Leadership Digest Second Series, Number 7. (ERIC Document Reproduction Service No. ED 120 899)

Dillman, Caroline M. and Maloney, Patricia. Mainstreaming the Handicapped in Vocational Education. Serving the Visually Handicapped. (ERIC Document Reproduction Service No. ED 142 766)

Ehresman, Norman D. and Others. The Development and Validation of an Inservice Program for Vocational Teachers of the Disadvantaged. Final Report. (ERIC Document Reproduction Service No. ED 142 709)

Ehresman, Norman D. and Others. An Inservice Program for Vocational Teachers of the Disadvantaged. Handbook. (ERIC Document Reproduction Service No. 142 707)

Feichtner, Sheila H. and O'Brien, Thomas W. A Position Paper on Mainstreaming Special Needs Students into Regular Vocational Classrooms. Recommendation to the State Advisory Council for the Bureau of Vocational Education. (ERIC Document Reproduction Service No. ED 146 426)

Herschbach, Dennis R. Teaching Special Needs Students. Selected Resources for Vocational Teachers and Teacher Educators. (ERIC Document Reproduction Service No. ED 146 428)

Hull, Marc E. and Others. Procedures for Teaching Vocational Concepts to Special Needs Students, Final Report. (ERIC Document Reproduction Service No. ED 133 599)

Maloney, Patricia and Weisgerber, Robert. Mainstreaming the Handicapped in Vocational Education. Serving the Communication Impaired. (ERIC Document Reproduction Service No. ED 142 749)

Meers, Gary D. Development and Implementation of Program Models for Assisting Vocational Teachers in Dealing with the Educationally Disadvantaged, Handicapped, and Minorities. Final Report. (ERIC Document Reproduction Service No. ED 145 173)

Phelps, L. Allen and Others. Vocational Education for Special Needs Students: Competencies and Models for Personnel Preparation. Final Report. A Report on the National Workshop on Vocational Education for Special Needs Students (January 13-15, 1976). (ERIC Reproduction Service No. ED 132 303)

Sheppard, Nathaniel A. Report and Evaluation of Workshop for Inservice Vocational Teachers of the Handicapped. (ERIC Document Reproduction Service No. ED 104 249)

Smith, Claudette. Mainstreaming the Handicapped in Vocational Education. Serving the Mentally Retarded. (ERIC Document Reproduction Service No. ED 142 767)

Staats, Elmer B. Training Educators for the Handicapped: A Need to Redirect Federal Programs. (ERIC Document Reproduction Service No. ED 128 988)

Tindall, Lloyd W. and Others. Modifying Regular Vocational Programs and Developing Curriculum Materials for the Vocational Education of the Handicapped. Progress Report 1976. (ERIC Document Reproduction Service No. ED 140 541)

Tindall, Lloyd W., Comp. and Others. Vocational/Career Education Programs for Persons with Special Needs in Wisconsin's Vocational Technical and Adult Education Districts. 1975-1976. (ERIC Document Reproduction Service No. ED 132 280)

Wall, James E. Vocational Education for Special Groups. Sixth Yearbook. (ERIC Document Reproduction Service No. ED 135 940)

Weisgerber, Robert. Mainstreaming the Handicapped in Vocational Education Developing a Plan for Action. (ERIC Document Reproduction Service No. ED 142 747)

Weisgerber, Robert A. and Smith, Claudette A. Improving Vocational Education Services for Handicapped Students. Final Report. (ERIC Document Reproduction Service No. 142 774)

Weisgerber, Robert. Mainstreaming the Handicapped in Vocational Education. Serving the Orthopedically Handicapped. (ERIC Document Reproduction Service No. ED 142 748)

Weisgerber, Robert. Mainstreaming the Handicapped in Vocational Education. Developing a General Understanding. (ERIC Document Reproduction Service No. ED 142 769)

Whiteford, Emma B. Special Needs Students in Regular Home Economics Programs: 1977 Report on Minnesota Secondary In-Service Teacher Education. (ERIC Document Reproduction Service No. ED 147 556)

(No author) Modifying Regular Programs and Developing Curriculum Materials for the Vocational Education of the Handicapped. Progress Report 1977. (ERIC Document Reproduction Service No. ED 145 233)

SECTION IV

STAFF DEVELOPMENT

Concerns of vocational educators

"When does the single classroom instructor find time to effectively accomplish each competency for each handicapped student enrolled in the vocational program, and still be useful to the gifted and average student? Will class standards be lowered to allow handicapped students to experience a significant rate of success? Will handicapped graduates really be competitive with non-handicapped students in the labor market? It is my experienced opinion that these students have no place in the regular classroom or shop situation. These students present a safety hazard and require too much individual attention. These students as human beings do have needs which must be met, but not in a normal grouping. Other students resent their presence in class or shop. As educators, we are only doing these special students a great injustice by placing them in a normal situation if they cannot cope with it." (Project CESNA, 1977, p.135)

Need for staff development

These direct quotes from vocational educators clearly represent the need for a comprehensive staff development program. The concerns the questions represent must be dealt with openly and honestly if we are to experience success in mainstreaming students into vocational education programs. It is through facing these issues that an understanding of the value of the mainstreaming concept will develop. One of the keys to a successful mainstreaming program is the adequate preparation of staff members. Without adequate preparation, staff members may cling to their fears and prejudices thus sabotaging attempts at mainstreaming.

Shared decision-making

Each staff member should be involved either directly or indirectly in the decisions that are made about mainstreaming in his or her classroom. This includes not only decisions about course content and/or procedures for individual students, but also about such things as selection and placement, entrance/exit, and additional services for students. In order for every person to become an integral part of the mainstreaming process each one should have a role in the planning of all phases.

Plan for success

To prepare staff members to become a part of the total process, they must have an information base from which to develop their own personal commitment. The administrator will need to provide for

a comprehensive staff development program which focuses on aiding staff members gain the understanding, knowledge and skill necessary for successful mainstreaming. With an adequaquate preparation of staff for implementing the program, the probability for success is much greater than it would be without staff development efforts.

Work with vocational Resource Educator

The Vocational Resource Educator, introduced in Section III, will be an excellent person to involve in all phases of the staff development program. He or she will be specifically trained to provide a variety of experiences for the staff.

Understanding

Staff development should focus on the three areas mentioned above--understanding, knowledge and skill. Effort must be devoted to sensitizing staff members to the world of people with handicaps. Staff members must be given the opportunity to explore some of their own misconceptions and prejudices regarding people with handicaps. They must begin to understand what it means to live each day in a wheelchair or without maximum muscle control. Through an understanding of what it's like to have a handicapping condition and exploring their own myths about people with handicaps, staff members will begin opening their minds to learning more about the implications for them as vocational educators.

Knowledge

Having an understanding of people with handicaps must be coupled with knowledge about the variety of handicapping conditions. Staff development must plan for helping staff members gain a working knowledge of the definitions and characteristics of various types of handicaps. They need to know how these handicaps affect the learning styles/abilities of the students. It is not necessary for the staff to have an in-depth knowledge of each handicap, but it is necessary for them to have resources available so they can obtain information about specific handicapping conditions.

Skill

Understanding linked with knowledge paves the way to developing spe-

cific skill for working directly with students who are handicapped. Vocational educators must know how to develop beneficial programs for students with handicaps. To assure that each student receives an appropriate education, vocational educators will become involved in writing Individualized Education Programs (IEP). As was mentioned in Section I, legislation (PL 94-142) requires that an IEP be developed for each student identified as handicapped and thus requires a modified vocational education program. This will necessitate the utilization of many of the skills the educators already possess as well as the application of new and/or different ones. Some of the essential skills are:

New and old skills required

- detailed job and/or task analysis;
- establishing flexible time parameters for acquiring classroom skills;
- modification of materials and/or equipment;
- working with all students in developing cooperative efforts;
- competency-based evaluation.

Helping vocational educators develop and expand their skills through a planned staff development program will facilitate the implementation of the mainstreaming process.

Questions to answer

Preliminary planning for programs of in-service or staff development requires that several questions be answered. They are as follows:

1. What do you want to accomplish as a result, i.e., what do you want the participants to be able to do as a result of the staff development program?
2. How will the desired outcome best be achieved, e.g., large group lecture, small group discussion, individual research, combination?
3. Who is the best person or persons to present the material, e.g., existing staff or outside consultants?
4. Where can the program best be presented, e.g., in-school, at another school, at a community facility (hotel, bank meeting room)?

5. When should the program take place, e.g., once a week for three weeks, two day fall retreat, once in the fall and once in the spring?

Get interest of staff members

After the five questions have been answered, the next step is to plan for ways to get staff members interested in the programs so that they will want to take part. This can be accomplished in several ways. Some of those ways are as follows:

- conduct a survey to identify the needs and interests of staff members;
- include as many staff members as feasible in the planning of the program;
- publicize the meeting (utilize personal contact as well as posters and other media);
- offer university and/or Board of Education credit;
- provide stipends for participants;
- provide release time for participants to attend;
- make the program voluntary and offer an incentive for attending.

Meet a need

These ideas can be used together or individually. The main idea is to take into consideration the natural resistance of people to change. Involvement in the staff development program should meet a need of the individual educator, thus creating a desire to participate in the program.

Preparation of the staff prior to the actual in-service program is an attempt to develop an open mind toward the content of the program. If the program is viewed as an "administrative edict" there may be resistance to the whole concept of mainstreaming. If, however, staff members can be helped to view the program as an aid to their effectiveness as educators they will be more open to the new/different ideas presented.

Plan for practice and personalization

The actual in-service experience should include the opportunity for large group, small group and individual involvement on the part of participants. This variety will help participants to practice and personalize the ideas presented. If they have the opportunity to practice

the ideas in small group simulations and then to apply it to their own situations, participants will be better able to transfer the learnings of the workshop to their classrooms.

The specific content of the in-service program will be determined by the unique needs of the staff to be involved. To identify broad training needs of vocational educators, a survey of Missouri vocational educators was conducted during the 1976-77 school year. One aspect of Project CESNA (Career Education Special Needs Assessment), was to identify the competencies needed by vocational educators to work effectively with students who are handicapped. In addition, the Project developed pre- and in-service training models to more adequately prepare vocational educators to work with the handicapped.

Training needs of Vocational Educators

The results of Project CESNA's assessment of approximately 300 vocational educators identified the need for training in the following eight areas:

- Evaluation with standardized and other vocational assessment instruments (e.g., work samples, job analyses, vocational evaluation systems).
- Full utilization of individualized instructional methods and techniques.
- Development of problem-solving techniques for student use.
- Use of various motivational techniques.
- Development of appropriate instructional objectives for each special needs student.
- Acquiring and maintaining a knowledge of behavioral management techniques to accelerate or decelerate appropriate/inappropriate behaviors or academic skills.
- Integration of students of various aptitudes and abilities into on-going programs.
- Management of antisocial behavior by channeling activity into productive positive behaviors. (p. 83)

In addition to the specific areas identified above, 64% of the vocational educators surveyed identified a high need for training to

teach students who are mentally retarded, multi-handicapped, orthopedically handicapped, hearing impaired, speech impaired and visually impaired.

Needs will vary

The results of this survey presents the training needs that vocational educators across the state identified. The needs of staff members in individual districts will vary from site to site. For this reason, it would be wise to conduct a survey to determine the specific needs of each group.

In addition to training needs as perceived by vocational educators, Project CESNA focused on their preferences for in-service training models, times preferred for in-service training and types of credit preferred. The results for the 262 vocational educators who responded to the survey are as follows:

Preferences for training models

Responses Made by Vocational Educators to TRAINING MODELS

Item	Rank (% Response) 1	2	3	4	5	6
In-Service Workshop	43	20	18	8	4	3
Workshops Within Districts	19	34	18	13	6	7
Extension Courses	21	15	20	13	15	13
Module/Learning Packet	9	7	10	28	24	20
Independent Study	4	7	15	22	29	20
On-Campus Courses	7	10	10	10	15	44

(Project CESNA, p.56)

Preferences for times and credit

Responses Made by Vocational Educators to TRAINING TIMES

Item	Response (%)
Release Time	60
Evenings	27
Summer	10
Saturdays	1

(Project CESNA p. 58)

Responses Made by Vocational Educators to TYPES OF CREDIT

Item	Response (%)
College Credit	60
Professional Growth	26
Other	6

(Project CESNA p. 60)

These results indicate that 63% of the vocational educators surveyed selected as their first or second choice in-service workshops conducted by personnel from outside the district. The workshops would include active involvement of all vocational, special education and counseling personnel. According to their preference, 60% of those surveyed chose release time as the preference for training time. Of those surveyed, 66% preferred college credit as the type of credit offered for the training workshops. Thus, according to the results of this survey, vocational educators prefer in-service training to be in the form of a workshop, held during school hours with college credit and presented or conducted by someone from outside the district. Although this type program may not be feasible for every area school, it does provide an indication of what educators prefer.

Involve the "doers"

When preparing for mainstreaming, involve those who will be affected by the change in the planning of ways to implement mainstreaming in general and staff development in particular. In this way, they will have an opportunity to explore alternative methods and ideas. The staff development program is an effective way to initiate the team planning approach that is so vital to the total mainstreaming process.

Reference:

Project CESNA Final Report University of Missouri-Columbia: Author, 1977.

RESOURCES

The following resources will be helpful when planning for staff development activities.

Arni, T., Magnuson, C., Sparks, W. & Starr, M. Missouri career education delivery system. Jefferson City: Department of Elementary and Secondary Education, 1977.

Brolin, D. Life centered career education: a competency based approach. Reston, VA: Council for Exceptional Children, 1978.

Brolin, D. Trainer's guide to life centered career education. Reston, VA: Council for Exceptional Children, 1978.

Meers, G. Development and implementation of program models for assisting vocational educators with the educationally disadvantaged, handicapped, and minorities. Lincoln: University of Nebraska-Lincoln, 1977.

Phelps, L. Instructional development for special needs learners: An inservice resource guide. Urbana: University of Illinois at Urbana-Champaign, Department of Vocational and Technical Education, no date.

West Virginia Training Institute. Expanding options for handicapped persons receiving vocational education. Roanoke: West Virginia Bureau of Vocational, Technical and Adult Education, 1976.

Meers, G. The handicapped: learning, earning, contributing, National Training Workshop. Lincoln, University of Nebraska, Lincoln, 1978.

SECTION V

VOCATIONAL PROGRAMMING FOR STUDENTS WITH HANDICAPS

There are any number of ways to plan overall vocational programming so that it will meet the needs of students with handicaps. One of the first considerations is the present vocational program. The CEC Vocational Education Policy Manual (1978) suggests the following questions for consideration:

Consider: present program

- What options are available for handicapped students?
- What needs to be done with present regular vocational education programs to allow handicapped students to successfully participate?
- What specially designed vocational education needs to be created and implemented?
- What related or supportive services need to be provided to enhance handicapped students' success in vocational education?

A second consideration is the services and programs available through other agencies and school programs. When determining the services to be offered in vocational education, it is necessary to consider other programs so that there is not a duplication of efforts. Money and time can be effectively utilized if cooperative efforts can be established between each of the groups who plan vocationally related programs for students with handicaps.

Other agencies

A third consideration is the related or supportive services that are to be provided for students with handicaps. These are the services which will assist the student in succeeding in vocational education. Related or supportive services include but are not limited to the following:

Supportive services

- transportation
- remedial instruction
- counseling
- speech pathology
- medical services
- parent counseling/training
- physical therapy

When planning programs, coordination as well as provision of these services should be considered.

Placement alternatives

The fourth consideration in vocational programming is the variety of placement options that are available. Although the majority of students served by this program will be able to succeed with modification in the regular vocational program, planners should be aware of other options that are or could be available. The CEC Policy Manual (1978) suggests the following alternatives for consideration:

- Placement in regular vocational classroom with:
  - Consultative assistance for teachers
  - Provision of direct services to students by itinerant specialists
  - Resource room help for students
- Placement in separate vocational classroom:
  - Student is part-time in regular class
  - Self contained class in regular education facility
  - Self contained class in special education facility
- Placement in a sheltered environment:
  - Residential
  - Hospital
  - Other institution
  - Sheltered workshop
  - Work activities center
- Placement in work-study or cooperative education program
- Homebound instruction

EXEMPLARY PROGRAMS

Throughout the United States there are numerous successful vocational education programs for students with handicaps. The ones described here are exemplary of others.

The Blue Hills Regional Technical School in Canton, Massachusetts utilizes a variety of placement formats in order to serve the needs of varying types and degrees of handicaps. The options they provide are as follows:

Placement formats

- Full-time programming at the vocational/technical facility with resource assistance as required.
- Cooperative education at the vocational/technical facility with work arrangements for seniors.
- One half day at the vocational/technical facility and one half day in public school.
- One or two year training programs at the vocational/technical facility.
- Prevocational experience arrangements for eighth and/or ninth grade students on a part-time basis for exploration purposes.
- After school training programs at the vocational/technical facility with academic instruction at the area public schools.
- Satellite-community programs in which students participate in community-based vocational instruction and receive limited academic work at the vocational technical facility.
- Substantially separate programs at the vocational/technical facility (CEC, 1978, Policy 502).

Joint planning

The Michigan Inter-agency Model and Delivery System of Vocational Education Services for the Handicapped provides an example of joint planning for vocational programming. Vocational education, special education and vocational rehabilitation jointly identify needs and develop programs to prevent duplication of services. The vocational alternatives available as a result of the Michigan Model are as follows:

Alternatives and programs

Regular vocational education: Program developed and designed for all students in the regular continuum of secondary education. Handicapped students receiving noninstructional special education services (speech, social work, occupational therapy, etc.) may be placed in this program if it is determined that they can

Alternatives and programs continued

benefit from its offerings.

Adapted vocational education: Regular vocational education programs which are altered to accommodate handicapped students who could not otherwise be placed in the program. Special materials and instructional aids are examples of adapting the program.

Special vocational education: A program designed for students who are assigned to self-contained special education classes. It is designed for handicapped persons whose disability precludes integration into a regular vocational education program. Training is usually of semi-skilled nature designed to provide prerequisite skills for entry into a regular vocational educational sequence or to provide entry level job skills.

Individual vocational training: Training in special programs (apprenticeships, manpower development, etc.) approved by a governmental agency, or a unique individual training program designed to fit a handicapped student's special interests and not generally available in the geographic area. This program may be used for any special education student with special talents or special training needs.

Pre-vocational evaluation services: Program designed for students whose disability precludes the use of the regular education sequence for obtaining vocational assessment. The service is provided in a sheltered workshop authorized by the U. S. Department of Labor. This is a diagnostic service and not an instructional program.

Work activity center services. A program designed exclusively to provide work therapy for impaired persons whose handicap is so severe as to make their productivity capacity inconsequential.

Work study services for students who have not had vocational education. Available to any special education student who is within one year of termination due to age, dropped out, or notified school of plans to drop out. Student must be employed and paid a legal wage. (CEC, 1978, Policy 601)

In White Bear Lake Minnesota, William Knaak (1977) superintendent of "916 Area Vo-Tech Institute (916AVTI)" reports success utilizing competency-based-vocational-education (CBVE) as a programming technique for students with handicaps. According to Knaak, the self-paced instructional program enables many handicapped students to complete a specific program without special assistance.

Competency based vocational education (CBVE)

There are no special training programs for students with handicaps at 916AVTI. They are enrolled in the regular programs and, when needed, are provided specialized support services. In order to assure that students have access to the programs, special waiting lists are used for students with handicaps. Some of the factors which contribute to the program's success with handicapped (and non-handicapped) students are

Reasons for success

- open entry/flexible exit time;
- personalized, self-paced learning (students are expected to attend class and to make appropriate progress for abilities);
- only two grades are given: M or T (Mastery or Test-Out);
- special instruction on how to progress in a self-paced system;
- continuous feedback about mastery of tasks;
- students experience success in learning;
- special assistance is given to new instructors.

Missouri exemplary program

The personnel at Northwest Missouri Area Vocational Technical School in Maryville have been developing their program over the past four years. Prior to 1974, planned services for students with handicaps were limited to a separate classroom for educable mentally retarded students. Since 1974, they gradually have been able to add more programs. In 1974 they received mini-project support from the Programs for Disadvantaged and Handicapped in the Missouri Department of Elementary and Secondary Education. With this grant they developed custodial and auto mechanics programs

for a few handicapped students. Each year they have applied for, and received, additional mini-project funding. In addition to their original programs their total program now includes:

- Pre-vocational Center in which unmotivated students are able to explore themselves in relation to the world of work;
- Learning Resource Center in which handicapped students who are not successful in regular vocational education can get help with academic skills required in the vocational program.

Beginning in 1978-79 they will have a Vocational Resource Center which can be utilized by teachers as well as students. All of their previous materials will be combined with other resources to make a comprehensive center. The materials will be cross-referenced so materials are accessible and usable. They will be able to meet the needs of more students. Staffing for the Center will be handled in cooperation with Northwest Missouri State University and will serve as a practicum site for library science majors.

Through concentrated effort and much joint planning, they are on their way to meeting the needs of <u>all</u> students. (Davies, 1978)

<u>Vocational Preparation</u>

Another important aspect of program planning is vocational preparation activities. Attention given to the vocational preparation program will benefit students and educators alike. Students will benefit by having information on which to base their vocational decision. Educators will benefit because students are more likely to be appropriately placed.

Basis for decision-making

Often students with handicaps have had limited opportunities to gain familiarity with the world of work and workers. Systematically planning for vocational preparation activities will help bridge this gap in their experiences. Some of the things that might be planned are:

Activities

1) Occupational awareness activities such as:

- field trips
- classroom speakers
- role playing
- interview parents to identify their work roles.

2) Self-awareness activities
   - exploration
   - experiences designed to explore and establish interpersonal relationships.

3) Planning-skill activities
   - decision-making
   - goal setting
   - priority setting
   - action taking

4) General work skill activities
   - job task related skill
   - work habits
   - work attitude

5) Independent living activities
   - travel training
   - money management
   - health/sanitary habits
   - maintenance activities, e.g., laundry, shopping, cooking.

Plan for skill development

Each of these activities might be activities which non-handicapped students will acquire through incidental learning. It cannot be assumed that students with handicaps will acquire the skills naturally--they must be planned as a part of their total educational program.

Total programming will require that many different people put their ideas and talents together in a coordinated effort so that opportunities for students with handicaps will be maximized.

References

Council for Exceptional Children. Administrative Policies for Vocational Education of Handicapped Students, Davis, S., Project Director. Reston, VA.: Council for Exceptional Children, 1978.

Davies, V. Personal Communication, June, 1978.

Knaak, W. C. The anatomy of a competency-based school, American Vocational Journal, 52, 8 pp 36-40.

RESOURCES

The resources listed below include projects which may be considered exemplary programs. They will be useful when considering local program organization.

Bolton, B. (Ed.). Psychology of deafness for rehabilitation counselors. Baltimore: University Park Press, 1976.

Brolin D. Life eentered career education: a competency based approach. Reston, VA: Council for Exceptional Children, 1978.

Cook, P. & Kaplan, C. Vocational training and placement of the severely handicapped (Project VOTAP). Palo Alto: American Institutes for Research, 1977.

Council for Exceptional Children. Administrative policies for vocational education of handicapped students, Davis, S., Project Director, Reston, VA: 1978.

Council for Exceptional Children. Special education administrative policies manual, Torres, S., Project Director. Reston, VA: Author, 1977.

National Association of Vocational Education Special Needs Personnel. 100 successful vocational special needs programs. Washington, D.C.: American Vocational Association, 1975.

National Training Project for the Development and Implementation of Vocational Teacher Education Programs for Working With the Handicapped. Journals, bulletins and newsletters of interest to special vocational needs educators. Meers, G. Division of Special Vocational Needs, University of Nebraska-Lincoln, 300 W. Nebraska Hall, Lincoln, Nebraska 68588.

Project PRICE, Brolin, D., Project Director. Columbia, MO: University of Missouri-Columbia, 1977.

Regional Rehabilitation Research Institute on Attitudinal, Legal and Leisure Barriers. George Washington University, 1828 L Street, N.W., Suite 704, Washington, D.C. 20036.

Special Education Rehabilitation Vocational Education (Project SERVE). Charles Wrobel, Manager, 3300 Century Avenue North, White Bear Lake, Minnesota, 55110.

Vocational Education Inservice Training (Project VEIT), Regan, M., Project Director. Kansas City, KS: University of Kansas Medical Center, 1978.

SECTION VI
CONSIDERATIONS FOR MAINSTREAMING STUDENTS WITH HANDICAPS

The word "mainstreaming" has come to have a strong impact on educators at all levels and in all situations. It is extremely important that vocational educators have a clear and accurate understanding of what mainstreaming is prior to their own involvement. It is often misinterpreted to mean placing all students with special needs regardless of their handicaps into the regular classroom to survive without support services for the student and/or the teacher. This is an inaccurate definition. In an interpretation of PL 94-482, the Federal Government has defined mainstreaming in the following manner:

Federal interpretation

> In a mainstreamed program the handicapped student is placed in a regular vocational class with non-handicapped or non-disadvantaged students. Extra support is provided to the handicapped students or to the instructors in the class. This supplemental support may take the form of the assignment of special personnel to the class, special program modifications, or the provision of special remedial education instruction, counseling, or other services to the handicapped or disadvantaged students enrolled in regular classes.
>
> (United States Government, March 27, 1978, p. 12757)

The interpretation further states that some students will require a separate program because of the severity of their handicaps. The intent is to place students with handicaps in the mainstream of education whenever possible. The concept can be further defined in terms of what it is and what it is not.

Mainstreaming is:

Mainstreaming IS...

- providing the most appropriate education for each student in the least restrictive setting;
- looking at specific educational needs of individual students rather than in terms of a clinical or diagnostic label such as mentally retarded, learning disabled, physically handicapped, hearing impaired, or gifted;
- looking for and creating alternatives that will help general

educators serve students with learning or adjustment problems in the regular setting. Some approaches being used to help achieve this are consulting teachers, methods, and materials specialists, itinerant teachers, and resource room teachers;

- uniting the skills of general education and special education so all students may have equal opportunity for an appropriate public education.

Mainstreaming is NOT...

Mainstreaming is **NOT**:

- Wholesale return of all exceptional students in special classes to regular classes;
- permitting students with special needs to remain in regular classrooms without the support services that they or their teachers need;
- ignoring the need of some students for a more specialized program that can be provided in the general education program;
- less costly than serving students in special self-contained classrooms.

V.R.E. liaison

The Vocational Resource Educator will be able to provide direct as well as liaison support to vocational educators as they become involved in the mainstreaming of vocational students with handicaps. In-service training which focuses on developing understanding will also help educators develop an accurate interpretation of the mainstreaming concept.

LEGISLATION

Least Restrictive Environment

As is noted above, PL 94-142 provides for assistance to educators charged with the responsibility to include students with handicaps in their classroom setting. The legislative provision for mainstreaming is in the call for educating all students in the "least restrictive environment". Subsections 121a 550-556 of PL 94-142 provide the Federal guidelines for establishing the least restrictive environment. Included within the regulations are assurances that

Least restrictive environment guidelines

- to the maximum extent possible handicapped students should be educated with non-handicapped students;
- removal of handicapped students from the regular classroom occurs

only when the nature or severity of the handicap precludes education in regular classes;

- a continuum of alternative placements is available to meet the needs of handicapped students;
- a handicapped student's placement is determined at least annually;
- placement is based on an individualized education program;
- in selecting the least restrictive environment, considerations is given to any potentially harmful effects on the child;
- teachers and administrators are informed of their responsibilities for implementation;
- teachers and administrators are provided with technical assistance and training to assist them in their implementation efforts.

The least restrictive environment has been graphically represented by several individuals (Deno, 1970, Reynolds, 1962) as an inverted pyramid. Figure 1 is an adaptation of their conceptualization.

Educational options

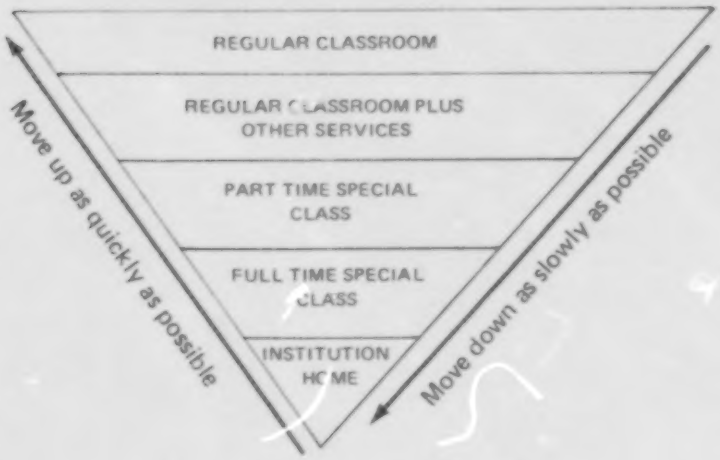
REGULAR CLASSROOM
REGULAR CLASSROOM PLUS OTHER SERVICES
PART TIME SPECIAL CLASS
FULL TIME SPECIAL CLASS
INSTITUTION HOME
Move up as quickly as possible
Move down as slowly as possible

Figure 1

Offer students greatest number of options

Starting at the top represents the educational environment which allows students the greatest number of options for learning. As the parameters narrow, so do the options for students. It is important for students to have access to the greatest number of opportunities possible for his or her abilities and skills. Mainstreaming is the process which incorporates the intent of the law into actual practice.

Individualized Education Program

As was noted earlier, another part of PL 94-142 is the provision that placement of students with handicaps in any educational environment be based on an individualized education program (IEP). Sections 121a. 340-349 identify the specific regulations for the development of IEPs. In brief, these regulations are as follows:

IEP Guidelines

1) The IEP for each student shall be developed by a team. The team shall include (121a. 344):
   - a person (other than student's teacher) with expertise in special education;
   - teachers who have a direct responsibility for implementing the IEP;
   - one or both parents or the parents' representative;
   - the student when appropriate;
   - other individuals as requested by parents or school;
2) The IEP for each student with a handicap shall be reviewed and revised as needed but at least annually (121a. 343).
3) The IEP shall include (121a 346):
   - a statement of present levels of performance;
   - annual goals;
   - short term measurable instructional objectives;
   - services needed by student, e.g., special education, instructional media and/or materials;
   - date services will begin and length of time services will be given;
   - extent student will participate in regular education programs;

- justification for placement;
- individuals who are responsible for each aspect of IEP;
- evaluation procedures and dates.

Implications

Greater vocational involvement

The effective implementation of these provisions implies a more active involvement on the part of vocational educators in the placement process of students with handicaps in vocational education programs. The counselor may be included in some of the assessment procedures. The Vocational Resource Educator can be a source for coordination between the sending district and the receiving vocational school. It is possible that the V.R.E. will be involved in the team planning for an individual student's IEP and will in turn work with vocational educators to facilitate its implementation.

ACCOMMODATING STUDENTS WITH HANDICAPS

Eligibility Requirements

Evaluate current policy

One of the first areas to be considered when preparing for mainstreaming of students with handicaps is the eligibility policy currently in effect. This policy should be reviewed to assure that qualified students with handicaps are not discriminated against. The Council for Exceptional Children in its policy manual for vocational education of students with handicaps (1978) suggests the following questions for use when examining eligibility requirements:

- Are the requirements relevant for success in the program?
- Is it possible to substitute other experience for a particular requirement?
- Are non-handicapped students required to meet the same eligibility requirements as the handicapped students?
- What training can be provided to prepare handicapped students to meet entrance requirements?

Physical Environment

Architectural barriers

A second area for consideration is the physical environment of the facility. Section 504 of PL 93-112 prohibits the exclusion of any person with a handicap because the facility is inaccessible. This means that physical facilities should be examined to ensure that no student with a handicap is unable to participate in an appropriate vocational education because the existing facilities are inaccessible or unusable. This does not mean that all areas of a facility must be accessible so long as all programs are readily available to students with handicaps.

Architectural barriers deprive students with handicaps, especially those with orthopedic handicaps, access to building and instructional facilities. These barriers often keep otherwise qualified individuals from participating in programs that would help them to realize their full potential. The CEC Vocational Education Manual suggests that programs be made accessible through such methods as:

- Redesign of equipment;
- Reassignment of classes and/or special services to accessible buildings;
- Assignment of aides to students;
- Alteration of existing facilities or construction of new accessible facilities;
- Any other methods that result in making programs accessible to handicapped persons.

Both PL 93-112 Section 504 and Public Law 94-482 (Education Amendments) require that facilities constructed with federal funds or those housing federally funded programs conform to standards published by the American National Standards Institute, Inc. In addition to the above legislation, the Architectural Barriers Act of 1968 (PL 90-480) identifies and suggests ways of improving access in federally funded buildings.

Make environment safe, accessible and usable

In addition to making facilities architecturally accessible and usable, health, fire and safety regulations should be examined when considering

the physical environment for students with handicaps. Some of the areas to examine are as follows:

- restrooms and toilets are readily accessible and usable;
- fire exits are identifiable and accessible;
- handrails are available in needed areas;
- hallways and other routes of travel assure safety for all handicapped students;
- drinking fountains/telephones/mirrors are usable for those in wheelchairs.

Involving students with handicaps in the examination and modification of the physical environment will help to assure that all students have access to programs that will help them to become all they are capable of becoming.

Curriculum

Instructional modifications

The third area for consideration when planning for mainstreaming is the curriculum. As was explained in the description and definition of students with handicaps (Section II), in order for a student to be considered handicapped in terms of vocational education he or she must require special adaptation or modification of the regular vocational program in order to participate. There are a number of ways to modify the curriculum in order to accommodate students with handicaps. Program offerings should be evaluated in order to determine if the current offerings can be modified to accommodate students with handicaps or if additional programs should be added. Keeping in mind the requirement that students be placed in the least restrictive environment, the development of additional programs should be done only when there is no way to adapt regular vocational programs to the specific needs of individual students.

Special vocational education

If the regular vocational program is not adaptable to certain stu-

dents, yet a vocational program is deemed the most appropriate, special vocational education should be considered. A special vocational education is the most appropriate when

> a separate specialized program is required because the nature or severity of the handicap is such that the student cannot benefit from the regular vocational education program even with modifications to the program or with the provision of special supplementary aids and services. In a separate specialized program, the class is used exclusively by handicapped or disadvantaged students (including institutionalized students) who have been identified or diagnosed as having a need for specialized staff, special educational materials or equipment, and supportive services in order to succeed in the vocational education program.
>
> (United States Government, March 27, 1978, p.12757)

Individual characteristics

When determining the educational needs of students with handicaps, it is important to consider the variation that exists from person to person. Handicapping conditions will have different affects on each individual. Weisgerber and Smith (1977) in a module prepared for the American Institutes for Research (AIR), speak clearly about individual variation. They identify three sources of variation to consider when planning programs for people with handicaps. One must take into consideration the degree of the handicap, the length of time the person has had the handicap and the stability of the condition. These sources of variation from person to person further point to the need to look at each as a unique individual with an individually handicapping condition.

Degree of handicap

Not all people with handicaps are handicapped to the same degree. Some people are mildly involved with handicaps that are not readily apparent. Other people's handicaps are moderate, resulting in problems that are very evident, yet can be accommodated in regular classrooms. Others are severely involved and require a great deal of assistance and special programming. Our focus is on those people whose handicap is mild or moderate.

Duration of handicap

The second source of variation in a handicapping condition, the length of time the condition has been in existence, will have an affect on the adjustment of the person to his or her handicap. A person who has been handicapped since birth will have developed a range of techniques for dealing with everyday living. Someone who has been recently handicapped may not yet have made a satisfactory adjustment to the handicap and the changes it has necessitated. These past and present experiences will affect vocational readiness.

Stability of handicap

The third variation to consider is the stability of the handicapping condition. Whether it is constant or intermittent and whether it will stay at the same level, worsen or improve, will influence present and future education and employment. Planning must include not only the present status but also projections of the state of the condition in the future.

Instructional helps

Adelman and Phelps (1978) suggest the following instructional aids for students with handicaps:

1) Utilization of peer tutors, aids and volunteers.
2) Special techniques for students with hearing problems.
   - Utilization of visually oriented media such as captioned films and charts;
   - Proper amplification;
   - Use of interpreters;
   - Help students learn to use total communication that includes speech, listening, sign language, finger spelling;
   - Utilize individual demonstrations preceding instruction whenever possible.
3) Special techniques for students with visual problems.
   - Printed materials converted to braille, enlarged print or thermoformed print;
   - Record essential text information onto cassette tapes;
   - Utilize volunteers as readers;

- Let students examine equipment and tools with a verbal description to develop a mental blueprint;
- Slightly raised lines around dangerous equipment.

Flexible time

Time requirements must also be examined when considering curriculum modifications. It will be necessary to allow for flexibility in entrance into and exit from programs. The handicaps of some people may require that they have to interrupt their training for periods of time or that they are limited in the amount of training in which they can participate at any one time. In addition to flexible scheduling, it may be that the time required to attain a specific skill will need to be lengthened for certain students. Some students, particularly the mentally retarded, have full capability for learning tasks but require learning in small steps over a longer period of time.

Realistic equipment modification

Equipment modification is the fourth area to consider when planning for mainstreaming. Some students with handicaps may be able to achieve success in vocational education programs through a slight modification in the equipment to be utilized. A caution is in order here. It is important that any equipment modifications are realistic for future employers of the student. If the modification is one that the majority of employers in your area could not easily make, the student will still be at a disadvantage in the labor market. The Council for Exceptional Children (1978) presents the following suggestions for adaptation of equipment:

1) Installing safety devices on machines, such as:
   - guard rails
   - cover plates
   - warning plates for tactual interpretation
   - warning lights
   - warning sounds
2) Installing adaptive operating devices on machines, such as:
   - hand controls (mono-, bi-)

- foot controls
- hand-foot controls (Hemi)
- head controls
- mouth controls

3) Adapting existing equipment or securing other equipment to assist handicapped students, such as:

- adaptive handles on tools
- guard plates to direct finger/hand accuracy
- left handed scissors
- pattern guides
- cutting guides
- magnifying guides
- tape recorders

(Council for Exceptional Children, 1978, Policy 703)

A challenge of benefit to everyone

Mainstreaming students in vocational education is of benefit to each of us. If we become actively involved in helping students with handicaps attain their earning potential the unemployment rate of handicapped will be reduced. If we become actively involved with maximizing the opportunities for students with handicaps we will realize the benefit of less public financial support of persons with handicaps. It is a challenge, but one which must be met so that all Americans have an equal chance for personal success.

References:

Adelman, F. W. & Phelps, L. A. Learning to teach handicapped learners. American Vocational Journal 53: 4, pp. 27-29.

Council for Exceptional Children. Administrative policies for vocational education of handicapped students, Davis, S., Project Director. Reston, VA: Council for Exceptional Children, 1978.

Deno, E. Special Education as developmental capital. Exceptional Children, 1970, 37, 235.

Reynolds, M. C. A framework of considering some issues in special education. Exceptional Children, March, 1962.

United States Government, Federal register. Washington, D.C.: Author, March 27, 1978.

Weisgerber, R. Mainstreaming the handicapped in vocational education: serving the orthopedically handicapped. Palo Alto: American Institutes for Research, 1977.

RESOURCES

These resources will expand the ideas included in this section regarding mainstreaming.

Altfest, M. Vocational education for students with special needs: a teacher's handbook. Fort Collins: Colorado State University, Dept. of Vocational Education, 1975.

Ayrault, E. Helping the handicapped teenager mature. New York: Association Press, 1974.

Barsch, R. The parent of the handicapped child: The study of child rearing practices. Springfield, IL: Charles C. Thomas, 1968.

Brolin, D. Life centered career education: a competency based approach. Reston, VA: Council for Exceptional Children, 1978.

Buffer, J., ed., Dimensions of vocational education to serve special needs persons. Cleveland: Cleveland State University, no date.

Buscaglia, L. The disabled and their parents: A counseling challenge. Thorofare, NJ: Charles B. Slack, 1975.

Cosper, C. Mainstreaming of the junior and senior high student. In Gary W. Nix (Ed.), Mainstream education for hearing impaired children and youth. New York: Grune & Stratton, 1976.

Cruickshank, W. Educational planning. In Cerebral palsy: A developmental disability. Syracuse, NY: Syracuse University Press, 1976.

DeRisi, W. & Butz, G. Writing behavioral contracts: A case simulation practice manual. Champaign, IL: Research Press, 1975.

Dickman, I. Living with blindness. New York: Public Affairs Committee, Inc., 1972.

Fuller, W. Your child, maturity, and you: A talk with parents. In John Gowan and George Demos (Eds.), The guidance of exceptional children: A book of readings. New York: David McKay Co., 1965.

Leigh, J. What we know about counseling the disabled and their parents: A review of the literature. In Leo Buscaglia (Ed.), The disabled and their parents: A counseling challenge. Thorofare, NJ: Charles B. Slack, 1975.

Macer, R. Sensitizing educators to effective instructional strategies to serve special needs persons. Cleveland: Cleveland State University, 1977.

Phelps, L. Instructional development for special needs learners: An in-service resource guide. Urbana: University of Illinois at Urbana-Champaign, Department of Vocational and Technical Education, no date.

Rosenberg, H. & Graubard, P. Peer use of behavior modification. Focus on Exceptional Children, 1975, 7 (6), 1-10.

Sommers, V. S. The influence of parental attitudes and social environment on the personality development of the adolescent blind. New York: American Foundation for the Blind, 1944.

Stewart, J. Counseling parents of exceptional children: Principles, problems, and procedures. New York: MSS Educational Publishing Co., 1974.

Weisgerber, R. Vocational education: teaching the handicapped in regular classes. Reston, VA: Council for Exceptional Children, 1978.

SECTION VII

JOB PLACEMENT AND EMPLOYMENT

Placement considerations

Job placement for students with handicaps presents the placement specialist with a unique challenge. In considering potential placement possibilities it is necessary to have knowledge about the job requirements and about the individual beyond that required when placing non-handicapped persons. Placing students with handicaps will also require effort directed toward educating employers about hiring students with handicaps. Working with students who are handicapped requires that the placement specialist consider the full range of employment possibilities rather than being satisfied with the first job that appears suitable, i.e., that stereotypes of particular jobs for certain handicaps be avoided.

Cooperative efforts V.R.E. and Placement Specialist

Although each school will have a person who is responsible for the placement of students in jobs, it is suggested that a cooperative effort be established between that person and the Vocational Resource Educator. The VRE will have expertise in the area of placing students with handicaps and will be able to aid in maximizing the present and potential placement possibilities.

Legislation

It's the law

"Hire the Handicapped--It's Good Business." Almost everyone has seen posters with this slogan. Now, for any employer with a federal contract, it's not only good business, it's also the law. Sections 503 and 504 of the Rehabilitation Act of 1973 (PL 93-112) mandate the hiring of persons with handicaps. Every vocational educator, counselor, student and employer should be made aware of the provisions of this law.

Affirmative action

Section 503 requires that anyone with a federal contract for more than $2500 must take affirmative action in the hiring of people with handicaps. This means they not only hire the handicapped but also actively recruit and advance people with handicaps. In

addition to an affirmative action program, they must make accommodations for the physical or mental limitations of handicapping conditions. Accommodations include making facilities accessible and usable as well as modifying and adapting equipment and job tasks. The U. S. Department of Labor makes copies of the regulations available through the Employment Standards Administration.

Civil rights

Section 504 is often referred to as the civil rights law for the handicapped. This law prohibits discrimination against otherwise qualified persons with handicaps in any program or activity receiving federal financial assistance. Each federal agency is responsible for establishing its own regulations for recipients of that agency's funds. In 1977 the Department of Health, Education and Welfare adopted regulations governing recipients of H.E.W. funding. These regulations prohibit discrimination against qualified persons with handicaps in the following areas:

- Recruitment, advertising, and the processing of applications for employment;
- Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff, and rehiring;
- Rates of pay or any other form of compensation and changes in compensation;
- Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
- Departure and return from leaves of absence, sick leave, or any other leave;
- Fringe benefits available by virtue of employment, whether or not administered by the recipient;
- Selection and financial support for training, including apprenticeship, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
- Employer sponsored activities, including social or recreational programs; and
- Any other term, condition, or privilege of employment.

Sub-contracting

In addition to the above regulations, provisions are made that prohibit sub-contracting to persons or groups that discriminate against qualified applicants or employees with handicaps. The regulations also require that reasonable accommodations be made in facilities, job tasks, work schedules and equipment. In employee selection the employer may not use tests or criteria that screen out people with handicaps unless the skills or criteria are required in performance of the job and no alternative screening procedures are available. It is illegal to inquire about the extent of handicapping conditions in pre-employment interviews, but it is permissable to ask about an applicant's ability to safely perform the tasks required. Exception is made if the inquiry is made in order to improve existing conditions or to comply with Section 503.

Insurance rates and hiring the handicapped

An area that is related to laws pertaining to hiring people with handicaps is the concern for insurance. Many employers have the misconception that their workmen's compensation premiums will automatically increase if they hire a person with a handicap. Insurance companies do not compute premiums on the basis of the physical condition of employees. Premiums are computed on the basis of the classification of the employer. An employer's classification is determined by the nature of the firm and hazards related to that firm. In some instances individual employer rates are figured on the past history of industrial accidents in that company. Thus, premiums are based on job and hazard factors rather than on employee factors. Appropriately placed persons with handicaps are no more prone to on-the-job accidents than are non-handicapped persons.

Job Development

Cooperative job development

The major task of job development is to identify job opportunities for persons with handicaps. This will require that personal contact be made with potential employers so that their concerns and

questions about hiring persons with handicaps can be dealt with directly. The VRE will be an excellent person to coordinate and/or carry out these efforts. Other school personnel who are involved in placement activities will also be resources for cooperative job development activities.

Pre-employment Skills

Skills for getting and keeping a job

The decision of whether to hire one qualified person or another is often made on the basis of the way they present themselves--in writing and in person. In addition, very few people lose their jobs because they do not have the skills required for the work task assigned to them. People lose jobs because they do not follow work rules, because of their work-attitude or because they do not get along with their supervisors or their co-workers. This is a clear mandate for systematic development of skills that are separate from specific job skills.

Before getting into a "real life" situation, students with handicaps need training and practice in areas such as working with others, work rules, writing resumés, filling out job application forms, and interviewing just as non-handicapped students do. They also need training and practice in dealing with the attitudinal barriers they will face in pre-employment and on-the-job situations. As with any other minority, they will have to work conscientiously toward dispelling myths and prejudices of employers and co-workers.

Job Placement

Include students with handicaps in regular placement program

Once job potential has been developed and pre-employment skills practiced, the students are ready for putting their skill to work in a real setting. Almost every school will have an active placement service. Efforts should be coordinated between area schools and sending schools to eliminate duplication of services and to establish processes by which information can be shared. The Vocational

Resource Educator will be able to work with placement specialists in all schools involved to assure that students with handicaps have the same placement opportunities that non-handicapped students have. It is important that placement of students with handicaps is included as part of the total placement program to help eliminate the conception of them as being different or separate from non-handicapped. If they can be viewed as qualified job applicants first and handicapped second, the placement potential will be expanded.

Follow-up/Follow-through

Once students are placed on a job it is important that follow-through activities take place. Even though the student may now be a graduate, studying students on-the-job success/satisfaction affords an excellent form of program evaluation. Programs for other students with handicaps can be made more successful if information about effective and/or ineffective aspects of the training program is available. Using students' on-the-job experiences will provide first-hand information about the problems encountered and will help to better prepare students who will follow.

Identify success

Follow-through activities should take place two or three times during the first year of employment. They may be made in person, via a phone call or by mail. Contacting the employer as well as the employee will provide helpful information for program-planning.

The total process of job placement is one of the most important aspects of working with students with handicaps. We would do them a grave injustice if we gave them job skills and then did not support those skills with job-seeking and survival skills.

Placement: reason for Vocational Education

RESOURCES

The resources that follow will provide the reader with additional ideas for effective job placement of students with handicaps.

Affirmative action to employ handicapped people: How the new law on federal contracts affects the employer/protects the jobseeker and employee. Washington, D.C.: U. S. Department of Labor, Employment Standards Administration.

AFL-CIO. Working together...The key to jobs for the handicapped. Washington, D.C.: The President's Committee on Employment of the Handicapped, 1973.

Atelsek, Frank & Mackin, Eva. Diversifying job opportunities for the adult deaf. Washington, D.C.: Alexander Graham Bell Association for the Deaf, 1971.

Employment of diabetics: A statement of the Committee on Employment and Insurance, American Diabetes Association. Diabetes, 1972, 21 (7), 834-835.

Garrett, J. Realistic vocational guidance. In William Cruickshank (Ed.), Cerebral palsy: Its individual and community problems (Revised Edition). Syracuse: Syracuse University Press, 1966.

Phelps, L. & Lutz, R. Career exploration and preparation for special needs learners. Boston: Allyn & Bacon, 1977.

President's Committee on Employment of the Handicapped. Architectural Checklist: making colleges and universities accessible to handicapped students. Washington, D.C.: Author, no date.

Wolfe, J. Disability is no handicap for duPont. Alliance Review, 1973. Reprinted by the President's Committee on Employment of the Handicapped.

SECTION VIII
SOURCES OF ASSISTANCE

There are many sources of assistance to aid in the process of mainstreaming. Assistance can come from state and local resources, from parent resources, from other school programs and from the Missouri Department of Elementary and Secondary Education.

State and Local Community Resources

As one begins looking for state and local sources of assistance in implementing the total mainstreaming process, one fact will stand out: there are numerous sources available. Persistence on the part of school personnel will pay off in a wealth of assistance, human and material. Each local district will be able to identify sources of assistance in its community that are not available in other communities. The sources presented here are meant to provide an impetus for exploring other sources. The address for each of the agencies mentioned is included in the Resource part of this section.

Numerous sources of assistance

The State and Local Employment Service can be a help in vocational evaluation and in job placement. They should have one person in each agency who is designated to work with persons who are handicapped. In addition, they publish a number of pamphlets that will be helpful in teaching job-seeking and keeping skills.

Job placement assistance

The Division of Vocational Rehabilitation is a part of a state-federal program of services for people with handicaps. They are able to provide a broad range of services. Among these services are:

A variety of services

- Evaluation of rehabilitation potential, including diagnostic and related services incidental to determining eligibility for services.
- Counseling and guidance, including personal adjustment counseling to maintain a counseling relationship throughout a handicapped individual's program of service and referrals to secure services from other agencies.
- Physical and mental restoration services.

- Vocational Training and other training services of a pre-vocational, personal and vocational adjustment nature, including work experience, books, tools and other materials related to training.
- Maintenance, not exceeding the estimated cost of subsistence, necessary to derive full benefits of other vocational rehabilitation services
- Transportation in connection with the rendering of any vocational rehabilitation services.
- Services to members of a handicapped individual's family when such services are necessary to the adjustment or rehabilitation of the client.
- Telecommunications, sensory and other technological aids and devices.
- Recruitment and training services to provide new employment opportunities in the fields of rehabilitation, health, welfare, public safety, law enforcement and other appropriate public service employment.
- Placement in suitable employment.
- Post-employment and "follow along" services necessary to assist handicapped individuals to maintain their employment.
- Occupational licenses, tools, equipment, initial stocks (including livestock) and supplies.
- Other goods and services which can reasonably be expected to benefit a handicapped individual in terms of employability (CEC, Policy 600, 1978).

Free material for visually impaired

The Regional Library for the Blind and Physically Handicapped is a part of the Library of Congress national network of services. They provide such help as Braille, large type and recorded materials for people who are limited in their use of visual materials because of a physical disability.

Governor's Committee

The Governor's Committee on Employment of the Handicapped is a source for information about state and national activities regarding employment. It is the state component of the President's Committee on Employment of the Handicapped which was initiated by Harry S. Truman and is maintained today.

Regional services

Regional Diagnostic Centers are an excellent source for assistance in the diagnostic area. Special education personnel will have the name of the contact person for the Center which serves each local education agency.

Joint efforts

County Co-ops, when available, are another source of assistance. These programs are formed to help a group of local education agencies provide services for students with handicaps. The extent and type of services will vary from county to county. Special Education personnel will be a source of information about programs and/or services available through county co-ops.

In addition to the above services, local and state affiliates of national organizations for specific handicaps will be a source of help and/or information about specific handicaps. The national organizations are included in the resources for this section.

Parental Assistance

As was mentioned in Sections I and II the legislation provides for the inclusion of parents in the final development of an IEP. Their involvement at the very earliest stages offers an excellent opportunity for enlisting their assistance in other aspects of the program. At the time the IEP is developed, they can be invited to participate in assisting in activities that directly involve their child or in activities that are wider in scope. Some of the in-school activities parents might become involved in are:

In-school involvement

- recording lessons, textbook assignments for use with non-readers and visually impaired;
- reinforcement of learning in small group settings, e.g., drill-work on basic facts or other material that requires repetition for learning:
- helping students with limited mobility move from place to place;
- making instructional materials, e.g., large print charts, practice lessons.

Out-of-school involvement

Parents of children with handicaps have organized nationally to provide support for each other as well as to lobby for state and federal legislation for educational opportunities for the handicapped. Their efforts have been quite successful as many of the programs offered today are a result of parental pressure. Thus, parents of students with handicaps are an already interested group as a whole and will be able to add a helpful dimension to the total mainstreaming process.

At-home involvement

Brolin and Kokaska (1978) have an extensive and useful chapter on parent involvement in their forthcoming book. It will serve as an excellent resource for anyone interested in developing a parent education program. In addition, West (1977) has identified ways the family can become involved in helping students acquire competencies in daily living skills, personal social skills and occupational guidance and preparation skills. Some of the methods she suggests are:

- provide opportunities for managing money for daily living needs;
- provide opportunities for planning, purchasing and preparing meals;
- help student become familiar with public transportation;
- provide opportunities for social interaction;
- taking student to various job sites and talk about work and workers.

Local Special Education Programs

In-class assistance

The special education personnel in the local district will be a source of on-site assistance to vocational educators. Working with them in cooperative efforts will enable students to function more efficiently in vocational education programs. They can help with in-class as well as out-of-class learning. In-class, special education personnel can provide assistance in such things as:

- developing effective instructional methods for specific handicaps;

- behavior management techniques;
- identifying ways equipment can be modified.

Out-of-class assistance from special education personnel could be such things as:

Out-of-class assistance

- remedial activities related to classroom skills;
- vocational preparation activities;
- basic academic skill development;
- aids such as readers, interpreters;
- in-service experiences to help vocational educators develop their own skills to the fullest.

The cooperative efforts of vocational rehabilitation, special education and vocational education will result in a strong vocational program for students with handicaps.

Joint efforts

Department of Elementary and Secondary Education

There are several divisions in the Missouri Department of Elementary and Secondary Education (D.E.S.E.) that will be able to provide assistance in the mainstreaming process.

The Division of Career and Adult Education has two areas that will be of special assistance. They are:

1) Programs for Disadvantaged and Handicapped which has the responsibility for providing assistance in the development of programs for the handicapped in local vocational education. This assistance is in the form of monetary as well as technical support.

Technical and monetary support

2) Pupil Personnel Services (formerly the Guidance Services Section): Career Education has the responsibility for local programs in career education. Each year local school districts are funded to develop career education programs. In addition, a variety of training materials are available for helping with the implementation of career education.

Career Education Programs

In addition to these specific areas of the Career and Adult Education Division, each of the other Sections is available for assistance in their areas.

The Division of Special Education within the DESE will be able to serve as a source for assistance in establishing local policy in

Special Education

cooperative programs between special education and vocational programs. They, too, offer technical as well as monetary support.

Vocational Rehabilitation

Vocational Rehabilitation Services discussed under "State and Local Community Resources" is also a part of the Missouri DESE. At the state level they can serve as a resource for information about training programs and services that are available in different areas of the state. They will also be able to provide technical assistance in coordinating efforts between Vocational Rehabilitation Services and the local schools.

The sources of assistance listed here are but a few of the local and state programs. There are, in addition, numerous other organizations with a state and/or national focus. The Resource part of this section contains the names and addresses of some of these. A comprehensive list is beyond the scope of this document; those listed here are exemplary of the types of resources that are available. The task becomes identification of the best and most appropriate sources of assistance for the local district.

Choose from many

References

Brolin, D. & Kokaska, C. Career education for handicapped children and youth. Columbus: Charles E. Merrill (In Press).

West, L. Family contributions to career education. In D. McKay (Ed.) Selected PRICE topical papers for career education. Columbia: University of Missouri-Columbia, 1977.

RESOURCES

STATE RESOURCES

Writing to these groups will yield valuable information and assistance.

Employment Service, Missouri State
421 East Dunklin
Jefferson City, MO 65101

Governor's Committee on the Employment of the Handicapped
P.O. Box 59
Jefferson City, MO 65101

Regional Library for the Blind
c/o Wolfner Library
1808 Washington
St. Louis, MO

Division of Vocational Rehabilitation Services
3523 North Ten Mile Drive
Jefferson City, MO 65101

In addition to the above, the U. S. Government publishes the following helpful resource:

State and Local Resources for the Mentally Retarded
H.E.W.
Washington, D.C. 20201

NATIONAL ORGANIZATIONS

Alexander Graham Bell Association for the Deaf, Inc.
3417 Volta Place, N.W.
Washington, D.C. 20007
(202) 337-5220

American Alliance for Health, Physical Education, & Recreation
1201 16th Street, N.W.
Washington, D.C. 20036
(202) 833-5547
Consultant, Programs for the Handicapped
or Director of Public Informaion

American Association of Workers for the Blind
1511 K Street, N.W., Suite 637
Washington, D.C. 20005
(202) 347-1559
Executive Director

American Cancer Society, Inc.
777 Third Avenue
New York, N.Y. 10017
(212) 371-2900

American Council of the Blind, Inc.
501 North Douglas Avenue
Oaklahoma City, OK 73106
(405) 232-4644

American Diabetes Association, Inc.
1 West 48th Street
New York, N.Y. 10020
(212) 541-4310

American Foundation for the Blind
15 West 16th Street
New York, N.Y. 10011
(212) 924-0420

*American Personnel and Guidance Association
1607 New Hampshire Avenue, N.W.
Washington, D.C. 20009
(202) 483-4633

American Printing House for the Blind
P.O. Box 6085
1839 Frankfort Avenue
Louisville, KY 40206
(502) 895-2405

American Speech and Hearing Association
9030 Old Georgetown Road
Washington, D.C. 20014
(301) 530-3400

Architectural and Transporting Barriers Compliance Board
Mary E. Switzer Building, Rm. 1010
330 C Street, S.W.
Washington, D.C. 20201
Public Information Office
(202) 245-1591

Arthritis Foundation
475 Riverside Drive
New York, N.Y. 10027
(212) 678-6363

Association for Children with Learning Disabilities
5225 Grace Street
Pittsburgh, PA 15236
Executive Secretary
(412) 881-1191

Association for Education of the Visually Handicapped
919 Walnut Street
Philadelphis, PA 19107
(215) 923-7555

Center on Human Policy
216 Ostrom Avenue
Syracuse, N.Y. 13210
Director
(315) 423-3851

Closer Look -- National Information Center for the Handicapped
Box 1492
Washington, D.C. 20013
(202) 833-4160

*"Especially" relevant professional organizations for vocational educators.

Council for Exceptional Children
1920 Association Drive
Reston, VA 20091
(703) 620-3660
(800) 336-3728
Division of Career Development is especially helpful. For more information write to:
Divisions Secretary, Council for Exceptional Children
1920 Association Drive
Reston, VA 20091

Disability Rights Center
1346 Connecticut Avenue, N.W., Suite 1124
Washington, D.C. 20036
(202) 233-3304

Epilepsy Foundation of America
1828 L Street, N.W., Suite 406
Washington, D.C. 20036
(202) 293-2930
Advocacy and Client Referral

Gallaudet College
7th and Florida Avenue, N.E.
Washington, D.C. 20002
(202) 447-0475
Public Service Programs

Girl Scouts of the U.S.A.
830 3rd Avenue
New York, N.Y. 10022
(212) 751-6900

International Association of Parents of the Deaf, Inc.
814 Thayer Avenue
Silver Spring, MD 20910
(301) 585-5400

International Parents' Organization
Alexander Graham Bell Association
3417 Volta Place, N.W.
Washington, D.C. 20007
(202) 337-5220
IPO Staff Coordinator

Junior National Association of the Deaf
Gallaudet College
7th & Florida Avenue, N.E.
Washington, D.C. 20002
(202) 447-0741

Library of Congress
Division for the Blind and Physically Handicapped
1291 Taylor Street, N.W.
Washington, D.C. 20542
(202) 882-5500
Reference Section

Muscular Dystrophy Association, Inc.
810 7th Avenue
New York, N.Y. 10019
(212) 586-0808
Director of Patient and Community Services

National Amputation Foundation, Inc.
12-45 150th Street
Whitestone, N.Y. 11357
(212) 767-0596
Executive Secretary

National Arts and the Handicapped Information Service
Box 2040
Grand Central Station
New York, N.Y. 10017
(212) 751-6214

National Association for Hearing and Speech Action
814 Thayer Avenue
Silver Spring, MD 20910
(301) 588-5242

National Association for Visually Handicapped
305 East 24th Street, 17-C
New York, N.Y. 10010
(212) 889-3141

National Association of Vocational Education Special Needs Personnel
(Affiliated with American Vocational Association)
c/o Dr. Gary Meers
105 Bancroft Hall
University of Nebraska-Lincoln
Lincoln, Nebraska 68588
(402) 472-2365

National Association of the Deaf
814 Thayer Avenue
Silver Spring, MD 20910
(301) 587-1788
Public Information Officer

National Association of the Physically Handicapped, Inc.
76 Elm Street
London, OH 43140

National Blindness Information Center
Dupont Circle Building, Suite 212
1346 Connecticut Avenue, N.W.
Washington, D.C. 20036
(202) 785-2974
(800) 424-9770

National Braille Association, Inc.
85 Godwin Avenue
Midland Park, N.J. 07432
(201) 447-1484

National Center for a Barrier Free Environment
8401 Connecticut Avenue, N.W.
Washington, D.C. 20015
(703) 620-2731

National Center for Law and the Deaf
7th and Florida Avenue, N.E.
Washington, D.C. 20002
(202) 447-0445

National Center for Law and the Handicapped, Inc.
1235 North Eddy Street
South Bend, IN 46617
(219) 288-4751

National Center on Educational Media and Materials for the Handicapped (NCEMMH)
Ohio State University
Columbus, OH 43210
(614) 422-7596
Information Specialists

National Federation of the Blind
218 Randolph Hotel Building
Des Moines, IA 50309
(515) 243-3169

National Handicapped Sports and Recreation Association
4105 East Florida Avenue
Denver, CO 80222
(303) 757-3381
President

National Multiple Sclerosis Society
205 East 42nd Street
New York, N.Y. 10017
(212) 532-3060

National Paraplegia Foundation
333 North Michigan Avenue
Chicago, IL 60601
(312) 346-4779

National Society for the Prevention of Blindness, Inc.
79 Madison Avenue
New York, N.Y. 10016
(212) 684-3504
Information and Referral Specialist

National Therapeutic Recreation Society
1601 North Kent Street
Arlington, VA 22209
(703) 525-0606

National Wheelchair Athletic Association
40-24 62nd Street
Woodside, N.Y. 11377
(212) 424-2929
Chairperson

Office for Handicapped Individuals
Office for Human Development
U. S. Department of Health, Education, and Welfare
South Portal Building
200 Independence Avenue, S.W., Room 338D
Washington, D.C. 20201
(202) 245-6644

President's Committee on Employment of the Handicapped
Washington, D.C. 20210
Office of Information
(202) 653-5010

Professional Rehabilitation Workers with the Adult Deaf
814 Thayer Avenue
Silver Spring, MD 20910
(301) 589-0880

Recording for the Blind, Inc.
215 East 58th Street
New York, N.Y. 10022
(212) 751-0860
Circulation Department

Registry of Interpreters for the Deaf, Inc.
P.O. Box 1339
Washington, D.C. 20013
(202) 447-0511

United Cerebral Palsy Associations, Inc.
66 East 34th Street
New York, N.Y. 10016
(212) 481-6350
Director of Program Services

GENERAL RESOURCES

The Resources listed on the following pages are those which are of general assistance to those involved with mainstreaming students with handicaps into vocational education programs.

ESPECIALLY HELPFUL MATERIALS

The following materials are those which this writer found especially useful in the preparation of this document. Their inclusion here is not intended to identify them as the best materials, but rather as those which would be of general value to anyone who is just starting in the mainstreaming process.

Altfest, M. Vocational education for students with special needs: a teacher's handbook. Fort Collins: Colorado State University, Dept. of Vocational Education, 1975.

Brolin, D. Life centered career education: a competency based approach. Reston, VA: Council for Exceptional Children, 1978.

Council for Exceptional Children. Administrative policies for vocational education of handicapped students, Davis, S., Project Director, Reston, VA: 1978.

Project PRICE, Brolin, D., Project Director. Columbia, MO: University of Missouri-Columbia, 1977.

Regional Rehabilitation Research Institute on Attitudinal, Legal and Leisure Barriers. George Washington University, 1828L Street, N.W., Suite 704, Washington, D.C.: 20036.

Rehabilitation Services Administration. Ready reference guide for disabled people. Washington, D.C.: U. S. Department of Health, Education and Welfare, 1977.

Special Education Rehabilitation Vocational Education (Project SERVE). Charles Wrobel, Manager, 3300 Century Avenue North, White Bear Lake, Minnesota 55110

Technical Education Research Centers, Inc. Guidance counseling and support services for high school students with physical disabilities, Foster, J., Project Director. Cambridge, MA: Author, 1977.

Weisgerber, R. Vocational education: teaching the handicapped in regular classes. Reston, VA: Council for Exceptional Children, 1978.

BIBLIOGRAPHIES

The following resources either are or contain bibliographies of additional resources. Combined they provide information about the very best of resources for mainstreaming students with handicaps into regular vocational education programs.

Accommodating special needs students: periodicals bibliography. Division of Special Vocational Needs, University of Nebraska-Lincoln 68588.

Altfest, M. Vocational education for students with special needs: a teacher's handbook. Fort Collins: Colorado State University, Dept. of Vocational Education, 1975.

Committee for the Handicapped. Directory of organizations interested in the handicapped. Washington, D.C.: People and People Program, 1976.

Herschbach, D., Smith, M., & Kessler, M., eds. Cooperative work experience: an annotated resource guide for teachers of the handicapped. College Park: University of Maryland, Dept. of Industrial Education, 1976.

Magisos, J. & Stakelton, A. Special needs populations: annotated bibliographies on bilingual, correctional, migrant, and handicapped populations with unique vocational education needs. Columbus: Center for Vocational Education, 1975.

Missouri Governor's Committee on Employment of the Handicapped. Directory of organization resources for handicapped. Jefferson City, Author, 1977.

National Association of Vocational Education Special Needs Personnel. 100 successful vocational special needs programs. Washington, D.C.: American Vocational Association, 1975.

National Training Project for the Development and Implementation of Vocational Teacher Education Programs for Working With the Handicapped. Journals, bulletins and newsletters of interest to special vocational needs educators.

President's Committee on Employment of the Handicapped. Bibliography of secondary materials for teaching handicapped students. Washington, D.C.: Author, no date.

Rehabilitation Services Administration. Ready reference guide for disabled people. Washington, D.C.: U. S. Department of Health, Education and Welfare, 1977.

Teaching Learning Materials. Curriculum Materials for vocational, technical, career, special needs education. New Brunswick: New Jersey Vocational Technical Curriculum Laboratory, Rutgers University, 1978.

DIRECTORIES OF SERVICES AND MATERIALS

(Most of these directories must be purchased)

American Annals of the Deaf: Directory of Programs & Services
American Annals of the Deaf
5034 Wisconsin Avenue, N.W.
Washington, DC 20016
(202) 363-1327

Directory of Agencies Serving the Visually Handicapped in the U. S.
American Foundation for the Blind, Inc.
Publications Division
15 West 16th Street
New York, NY 10011
(212) 924-0420

Directory of Counseling Services
International Association of Counseling Services, Inc.
1607 New Hampshire Avenue, N.W.
Washington, DC 20009
(202) 232-6729

Directory of Organizations Interested in the Handicapped
Committee for the Handicapped
People-to-People Program
1028 Connecticut Avenue, N.W., #610
Washington, DC 20036
(202) 223-4450

Publisher Source Directory
Ohio State University Press
Publications Sales Division
2070 Neil Avenue
Columbus, OH 43210
(614) 422-6930

Ready Reference Guide: Resources for Disabled People
Office of Special Programs
Rehabilitation Services Administration
330 C Street, S.W.
Washington, DC 20201
(202) 245-0820

Training Resources Directory (and supplements)
Continuing Education Program for
Rehabilitation: Region 2
State University of New York at Buffalo
416 Christopher Baldy Hall
Amherst, NY 14260
(716) 636-2517

Yearbook of Special Education, 1976-77
Marquis Academic Media
200 East Ohio Street
Chicago, IL 60611
(312) 787-2008

Handbook on the Legal Rights of Handicapped People
President's Committee on Employment of the Handicapped
Washington, DC 20210
(202) 653-5067